HELIOS®

LED Processing Platform

Quickstart Guide

HELIOS v.21.05.0
May 7, 2021

For complete warranty and legal information please see the full HELIOS User Guide.

Legal

Information and specifications in this document are subject to change without notice. Megapixel VR assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual.

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Warranty Information

Megapixel VR warrants the HELIOS Processing System, hardware products, against defects in materials and workmanship under normal use for a period of one (1) year from the date of retail purchase by the original end-user purchaser.

Megapixel VR does not warrant that the operation of the product will be uninterrupted or error free.

Megapixel VR is not responsible for damage arising from failure to follow product or installation instructions.

Installation Environment

The HELIOS Processor is designed to be rack mounted in a central control room for fixed installations or flight cased for touring applications.

The unit has been qualified to operate in a dry environment within a temperature range of 10°C to 35°C (50°F to 95°F).

Certifications

NOTE: Never obstruct the airflow to the front/rear ventilation slots. The front filters need to be regularly checked and cleaned.

Table of Contents

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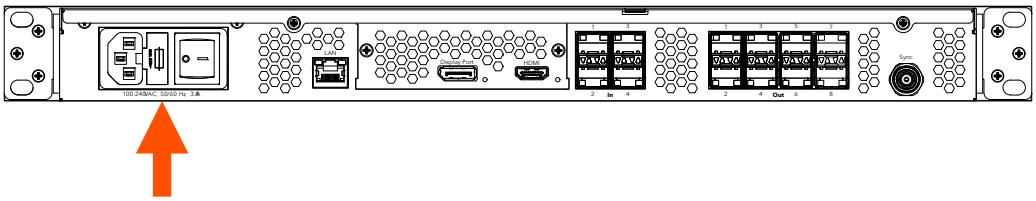
Power



1. Plug in (IEC to Edison cable included).
2. Switch ON.

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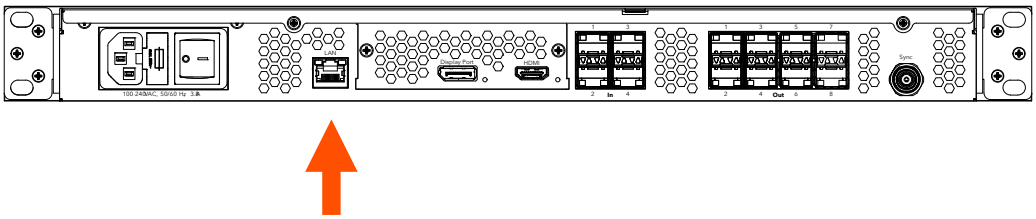
Data



Connect to the processor via the system control LAN. This can be done directly with a laptop or for larger systems, with a wireless router.

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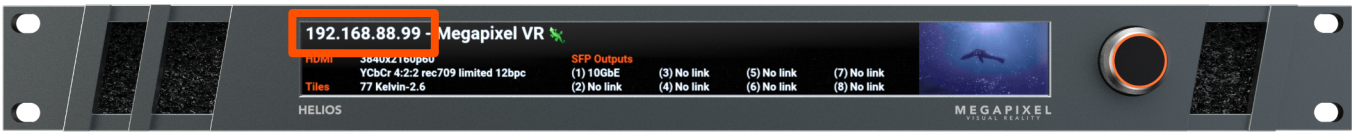
WebUI

1. Note the IP address of HELIOS on the front panel.



2. The HELIOS user interface is accessed with a modern web browser such as Chrome or Safari. The computer running Chrome or Safari must be configured to be on the same LAN as the HELIOS Processor. The IP address of the processor is reported on the front display. Type the HELIOS IP into the search field of a Chrome or Safari browser.

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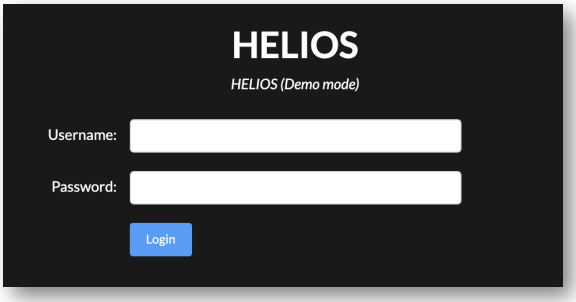
Login

If security has been enabled, a login window will be shown. If the credentials are not known, the HELIOS unit will need to be restored to factory defaults. Please see the full HELIOS user guide appendix for more information about the factory defaults reset.



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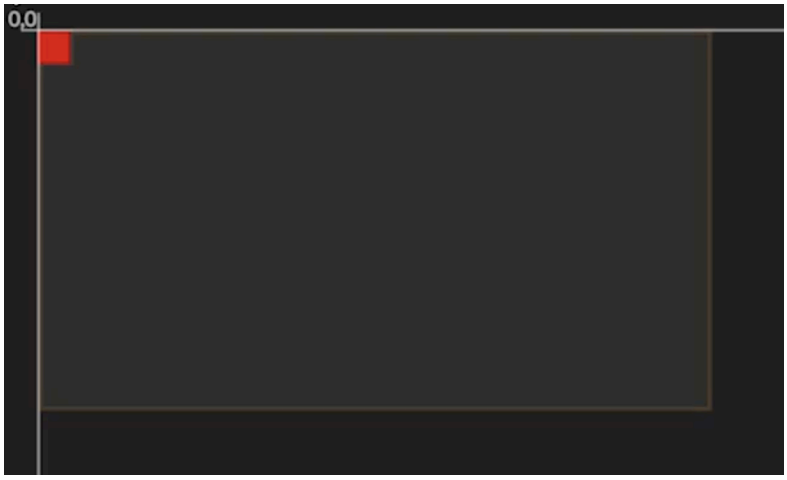
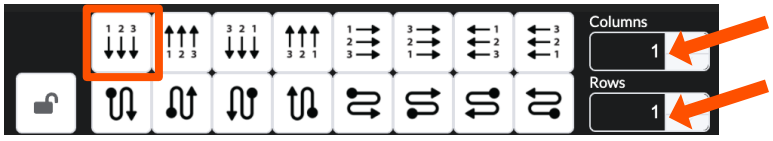
Mapping

1. Physically connect the tiles with network cables in a repeating pattern. Often systems connect tiles in columns ***left right / top down*** (viewed from the front of the display).

2. HELIOS will automatically recognize connected tiles and stack all tiles on top of each other at the 0,0 position on the map. This helps get an image on all tiles, but it will be the same duplicate image.



3. Select the stack of tiles at the (0,0) position, then select the cable topology from the available icon buttons that represents the topology that was used to connect the tiles. The ***left right / top down*** option is the first one (highlighted).



4. To the right of the cable topology buttons (arrows above), enter the tile dimensions of the display in columns and rows.

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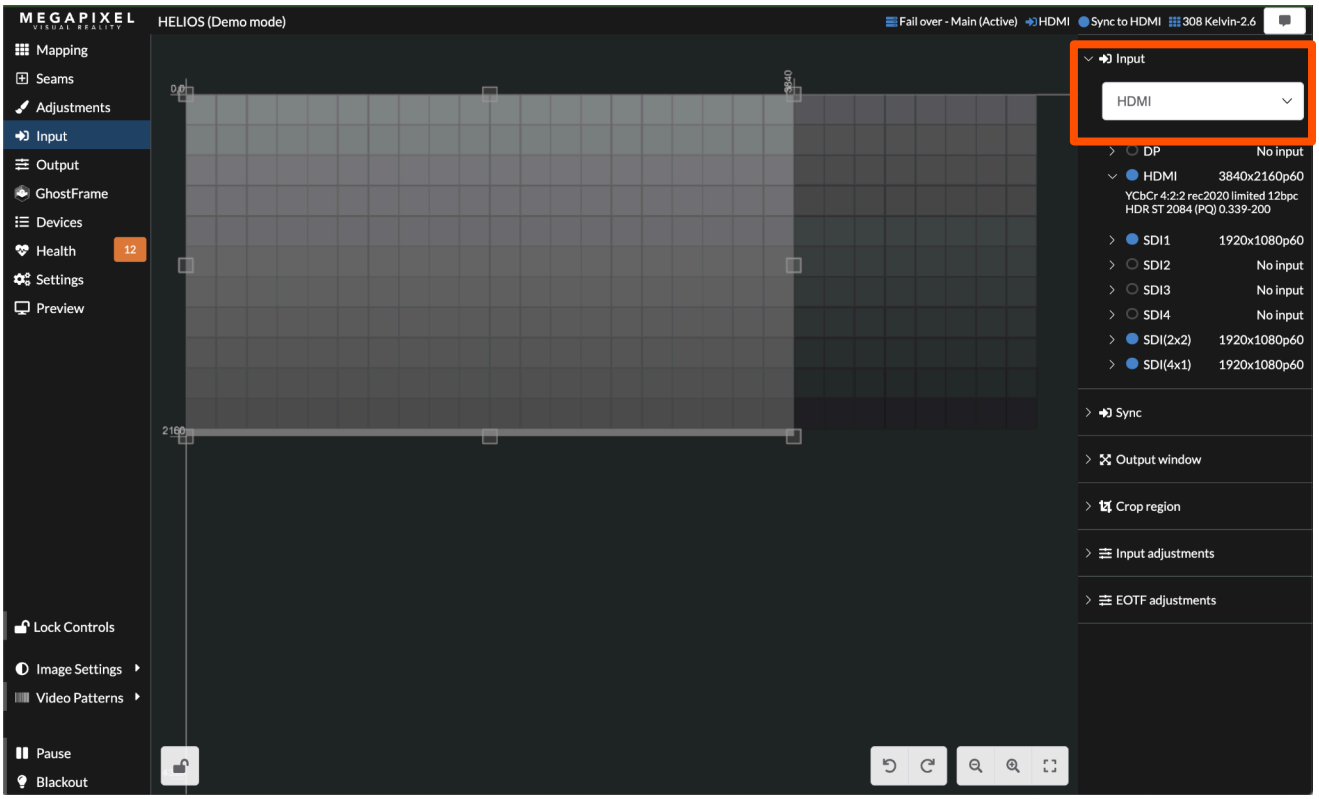
Input Selection

HELIOS will remain on the last valid input that was selected. To change the selected input, navigate to the ***Input*** pane and select an input from the drop down.



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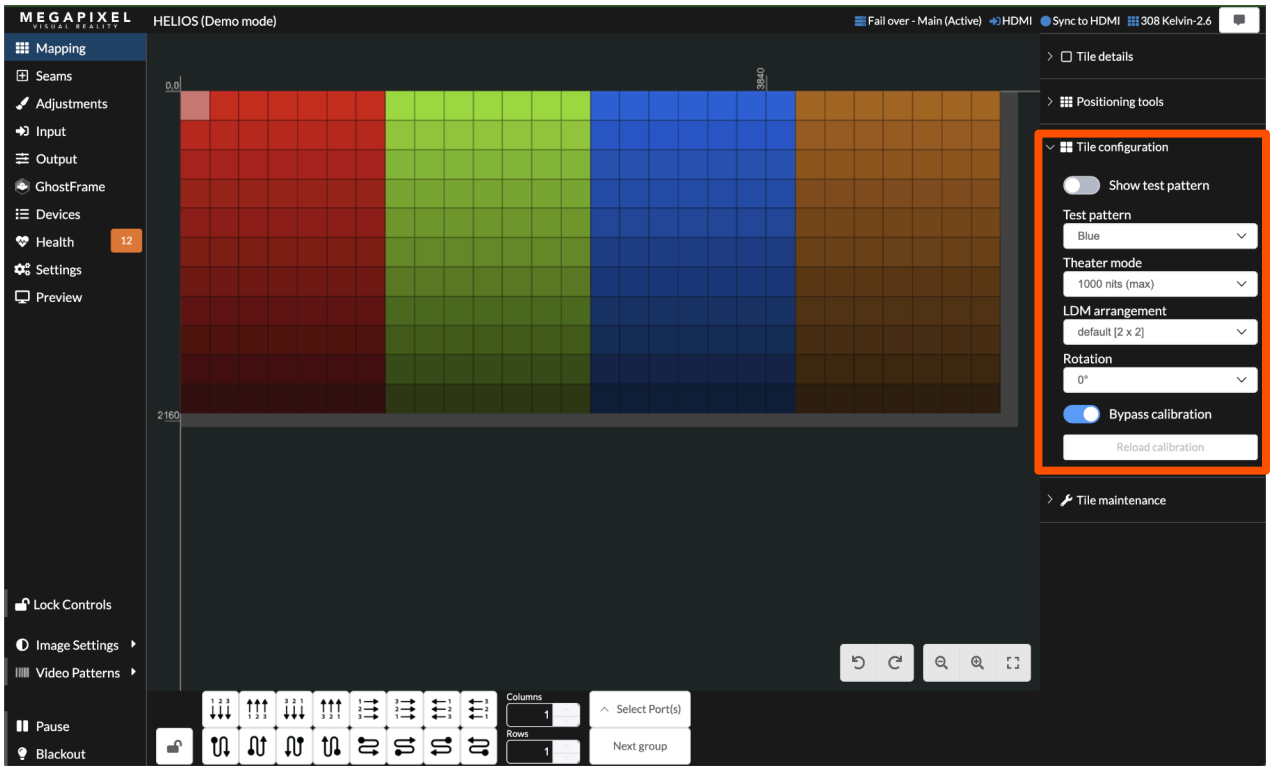
Test Patterns

HELIOS systems can display two types of test patterns:

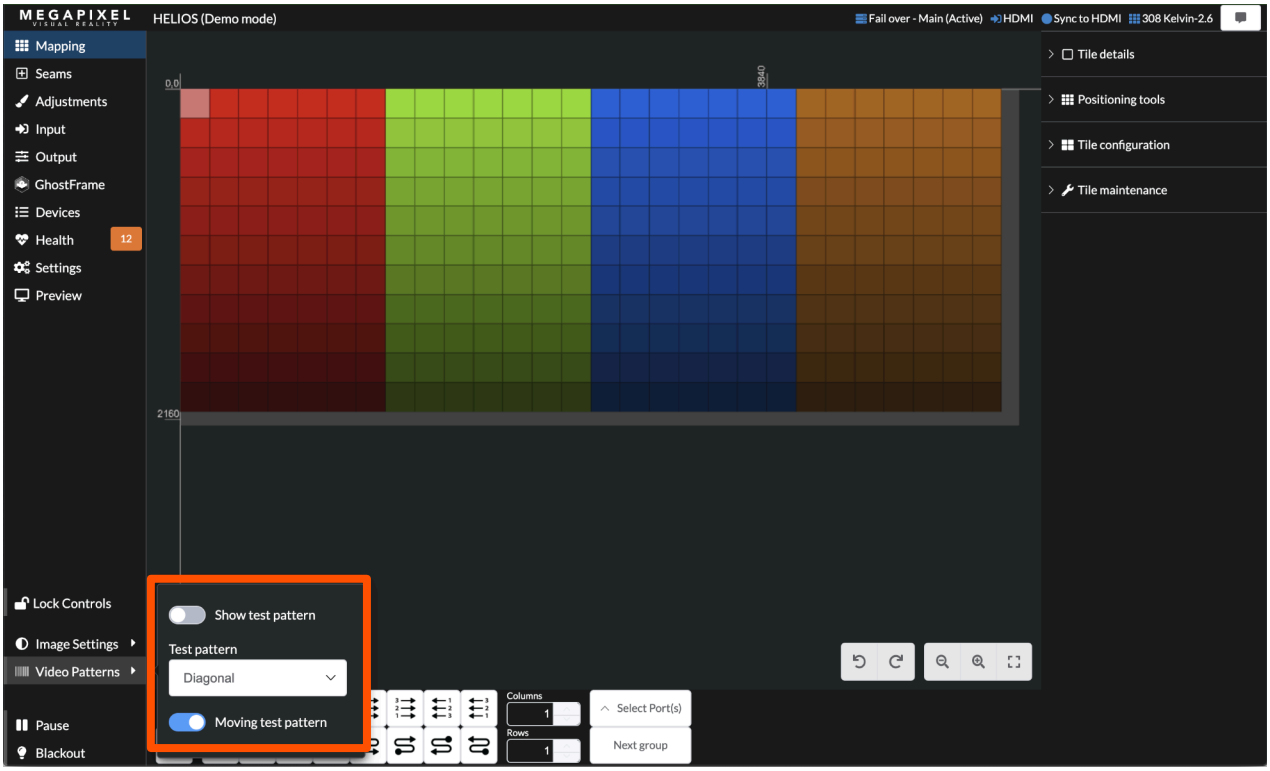
- ***Tile test patterns*** - recalled from the onboard memory of tiles.
- ***Video patterns -*** recalled from the onboard memory of HELIOS.

Tile test patterns are found on the ***Mapping*** pane under the ***Tile configuration*** accordion.



Test Patterns (continued)

Video patterns can always be found on the bottom left of the ***Global*** pane under ***Video Patterns***.



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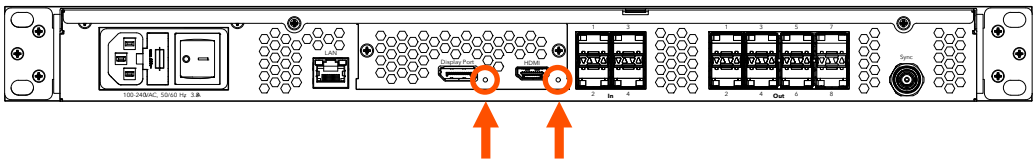
HELIOS Indicators

HELIOS units have several small LED indicators on the rear of the units. Below are tables explaining what each means.

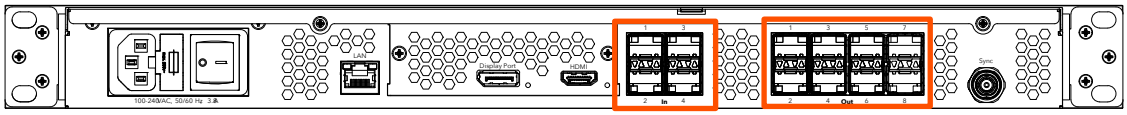
VFMC Cards - Next to each VFMC video input connector is a small LED that indicates the status of each VFMC input link.



Indicator Color	Meaning
White	System boot
Black	No link (no cable)
Yellow	Valid link, no video
Blue	Valid link, valid video
Red	Error detected in the last 1.25 sec
Green / Cyan / Magenta	Training cycle

HELIOS Indicators (continued)

SFP+ I/O



SFP+ Inputs - Four (4) SFP+ slots provide copper SDI inputs. Each input requires a Megapixel 12G SFP+ and supports formats up to 12G SDI. Indicators on each SFP+ show the status of the input.

Indicator Color	Meaning
Green	Receiving a carrier signal
Blue	Valid frame detected

SFP+ Outputs - HELIOS Standard units support up to eight Megapixel 10G fiber SFP+ outputs for data transmission to the display. Likewise, HELIOS Junior units support up to eight Megapixel 1G copper SFP outputs. Indicators on each SFP+ slot show link status.

Indicator Color	Meaning
Green	Link to switch
Blue	Connected to tiles

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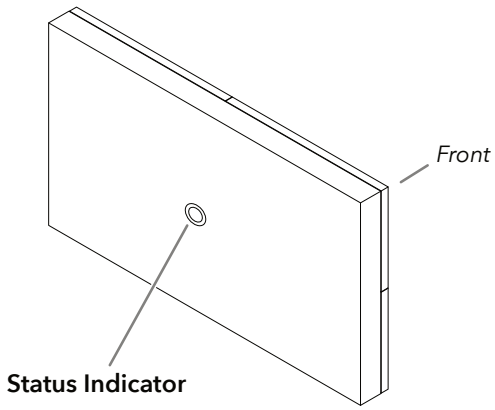
Display Tile Indicators

On the rear of each display tile is a multi color indicator button, the exact location varies by tile type. The table below details the meaning of each of the colors and the function of the button.



Indicator Color	Meaning
White	Booting
Cyan	Booted into safe mode
Green	Ready (No network connection)
Blue Single Flash	No HELIOS connection (1 tile link active)
Blue Double Flash	No HELIOS connection (2 tile links active)
Blue Solid	Connected to HELIOS (Normal operation)
Yellow	Internal Pattern (press and hold center button 4 seconds to enter and leave this mode). Press and release to advance to the next pattern.
Red	Flash once every 10 sec to indicate a system error.