

# Analog Spatial Light Modulator





## Overview

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Modulators (SLMs) are uniquely designed for pure phase applications and incorporate analog data addressing with high refresh rates. The spatial light modulators developed at Fraunhofer IPMS consist of arrays of micromirrors on semiconductor chips, with the number of mirrors varying from a few hundred to several million depending on the application. In most cases, this requires a highly integrated application-specific integrated. The Fraunhofer Institute for Photonic Microsystems (IPMS) has been developing and manufacturing micromirror arrays for more than 20 years. While originally focusing on applications related to microlithography and therefore mainly for light in the deep ultraviolet range, the range of applications. HOLOEYE's Spatial Light Modulator systems are based on translucent (LCD) or reflective (LCOS) liquid crystal microdisplays.



## Analog Spatial Light Modulator

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### Spatial Light Modulators

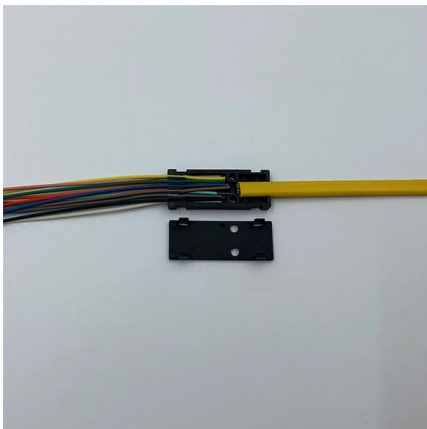
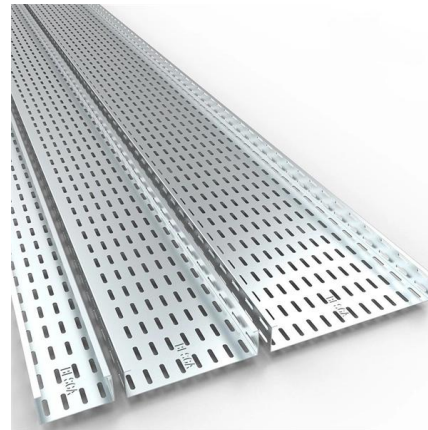
SPATIAL LIGHT MODULATORS Reflective Analog SLMs All of Meadowlark's liquid crystal on silicon (LCoS) backplanes incorporate analog data addressing with high refresh rates to provide the lowest

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### Spatial Light Modulator Design Optimization for All-Optical Analog-to

Optimum design of lateral coupled micro-strip (CMS) driving electrodes of electro-optic (E-O) polymer based optical modulators are discussed, where improved modulation sensitivity is achieved using 1D

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### Spatial Light Modulator

The Spatial Light Modulator (SLM) from Meadowlark Optics sets new standards in optical phase modulation. This advanced device combines a 1920x1200

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### Spatial Light Modulator - 1024 x 1024

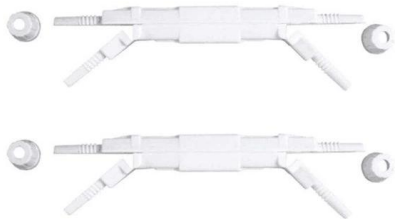
Modulators (SLMs) are uniquely designed for pure phase applications and incorporate analog data addressing with high refresh rates. This combination provides users with the fastest response times



### Spatial Light Modulators

HOLOEYE's Spatial Light Modulator systems are based on translucent (LCD) or reflective (LCOS) liquid crystal microdisplays. The use of LC materials in SLMs is

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### NEW ANALOG PHASE ONLY SPATIAL LIGHT

The new analogue phase only Spatial Light Modulator extends HOLOEYE's broad SLM product range for applications with demanding

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### Spatial Light Modulators

Spatial Light Modulators Spatial Light Modulator - 1024 x 1024 High Speed Analog, Phase Only - up to 2 kHz Meadowlark Optics' Liquid Crystal on Silicon (LCoS) Spatial Light Modulators (SLMs) are

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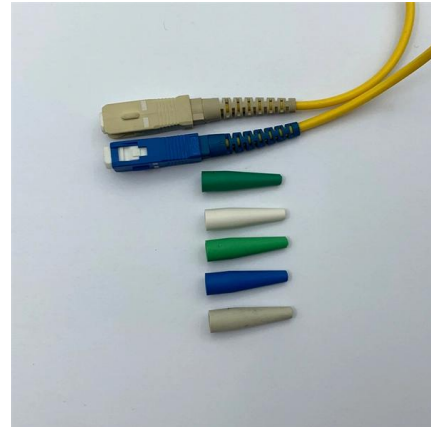




## Analog Spatial Light Modulators Based on Micromirror Arrays

The Fraunhofer Institute for Photonic Microsystems (IPMS) has been developing and manufacturing micromirror arrays for more than 20 years. While originally focusing on applications related to

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## Fraunhofer IPMS Debuts Spatial Light Modulator

The scientists' spatial light modulators comprise several million individually analog-controllable mirrors on a single semiconductor chip. These

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## Spatial light modulators

Spatial light modulators The SPIE Digital Library offers a comprehensive collection of research articles, conference papers, and technical documents focused on spatial light modulators (SLMs), reflecting

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## Spatial Light Modulator - 1024 x 1024

Spatial Light Modulator - 1024 x 1024 Ultra-High Power -  $\geq 1$  kW at 1070nm Meadowlark Optics' Liquid Crystal on Silicon (LCoS) Spatial Light Modulators (SLMs) are uniquely designed for pure phase

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**A full degree-of-freedom spatiotemporal light modulator**

Panuski et al. demonstrate a programmable photonic crystal cavity array, enabling the spatiotemporal control of a 64 resonator, two-dimensional spatial light modulator with nanosecond-

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**Spatial Light Modulator**

1920 x 1152 1/2 Analog Spatial Light Modulator  
 This SLM offers large format, high fill factor (high optical efficiency), high-speed (as fast as 1.4 ms), low phase ripple (.2 1/2 3%), high optical power handling

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**Spatial Light Modulators**

Analog Phase Only Spatial Light Modulator Series  
 The analog ERIS Spatial Light Modulator shows extreme phase stability, low latency and the display architecture allows low crosstalk LCOS-cell

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**Analog spatial light modulators: advances and applications**

The performance and operation of high-speed, liquid crystal spatial light modulators are discussed in relation to a variety of system-level aspects. The issues involving the use of these

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## Micromirror Arrays

SLMs based on micromirror arrays (MMAs) are now available in very different shapes and sizes. In 2018, Song et al. published a very comprehensive review of available devices .

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## spatial light modulator

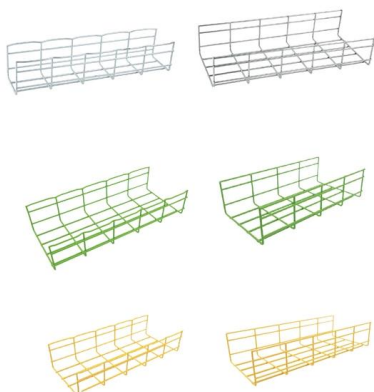
A spatial light modulator (SLM) is a pixellated liquid crystal device that can individually control the phase value of each pixel. It imposes spatially varying modulation onto an incident beam, allowing for the

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## Spatial Light Modulators

We develop custom spatial light modulators with segmented micromirror arrays and a high pixel count--tailored for demanding industrial applications. Our advanced micromirror technology enables

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## Spatial Light Modulators

SPATIAL LIGHT MODULATORS Reflective Analog SLMs All of Meadowlark's liquid crystal on silicon (LCoS) backplanes incorporate analog data addressing with high refresh rates to provide the lowest

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## Spatial Light Modulator

All of our liquid crystal on silicon (LCoS) backplanes incorporate analog data addressing with high refresh rates to provide the lowest phase ripple SLMs available. Users can select standard or high

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## ERIS-1.1 Phase Only Spatial Light Modulator

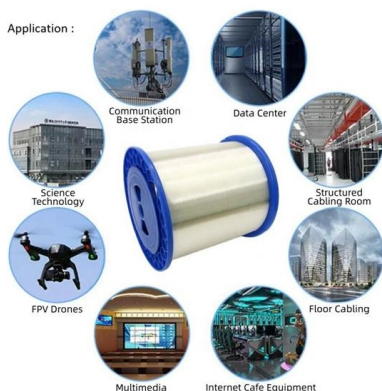
The analog ERIS-1.1 Phase Only Spatial Light Modulator shows extreme phase stability, low latency and low crosstalk. The device features a 120 Hz mode and a

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## Melia Bonomo / Spatial Light Modulators

Binary thresholding: creation of a binary image from a grayscale analog image by allowing light to pass through a single active resolution element (pixel) only if the signal intensity is greater than an

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## Spatial Light Modulator - 1024 x 1024

Spatial Light Modulator - 1024 x 1024 Ultra-High Power - N: DW QP Meadowlark Optics' Liquid Crystal on Silicon (LCoS) Spatial Light Modulators (SLMs) are uniquely designed for pure phase applications

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For datasheets, pricing, or custom fiber access solutions, please visit:  
<https://frindel.es>