

# **Spatial Light Modulator Refresh Rate**





## Overview

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Modulators (SLMs) are uniquely designed for pure phase applications and incorporate analog data addressing with high refresh rates (1400 Hz). Current wavefront shaping technologies face a fundamental dichotomy: spatial light modulators (SLMs) offer high pixel count but suffer from low refresh rates, while acousto-optic deflectors (AODs) provide moderate speed with restricted optical beam geometries. Liquid crystals are birefringent, so applying a voltage to the cell changes the effective refractive index seen by the incident wave, and thus the phase retardation of the reflected wave. Meadowlark Optics' Liquid Crystal on Silicon (LCoS) Spatial Light Modulators (SLMs) are. It is the best qualified and diversified SLM platform with many versions optimized for specific requirements, including high reflectivity versions dielectric mirror applications.



## Spatial Light Modulator Refresh Rate



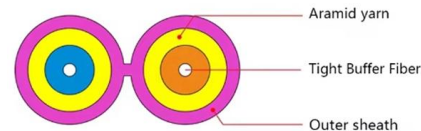
### Spatial Light Modulator

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 ( $\pm 3\%$ ), high optical power handling

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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



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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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### Spatial Light Modulator , Resolution, Speed & Applications

Explore how Spatial Light Modulators revolutionize optics with high-resolution, speedy control for applications in holography, computing, and beyond.



### Spatial Light Modulators

SLM Spatial Light Modulators PLUTO-2.1 Phase Only Spatial Light Modulator Series The PLUTO Spatial Light Modulator is the all-rounder within our product range.

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### Ferroelectric liquid-crystal modulator with large switching rotation

In this work, instead of regarding the display application, we are more interested in FLCs as phase-only spatial light modulators (SLM) for diffractive and/or adaptive optics.

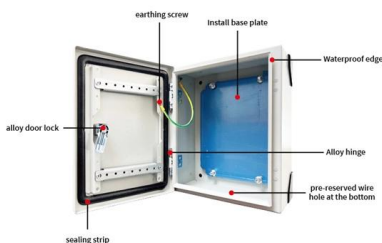
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### Digital spatial light modulators

Digital spatial light modulators (SLMs) provide fine-grained control of light, allowing the creation of two-dimensional light patterns with user-controllable characteristics.

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### Spatial light modulator



As EASLMs can run as fast as 2500 frames per second, it is possible to tile around 100 copies of the image on the EASLM onto an OASLM while still displaying full-motion video on the OASLM. This

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### SPATIAL LIGHT

The device features an LED-connector which can be used to synchronize the light source (color-switchable RGB lasers or LED lighting) with the device. LETO-3-CFS-127 version is especially

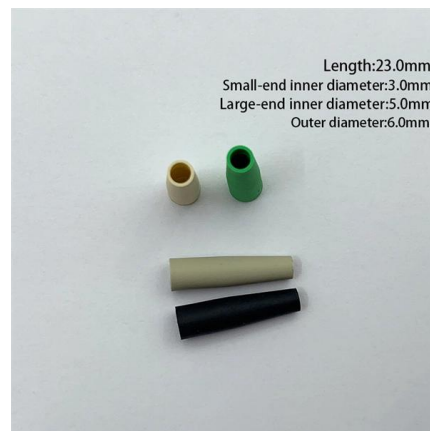
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### Spatial Light Modulators and Their Applications in Polarization

However, the resolution of the CGHs are sometimes limited by the structural discrepancies (fill factor, spatial anomalies, refresh rate, etc.) of SLM. Therefore, it is recommended to calibrate the

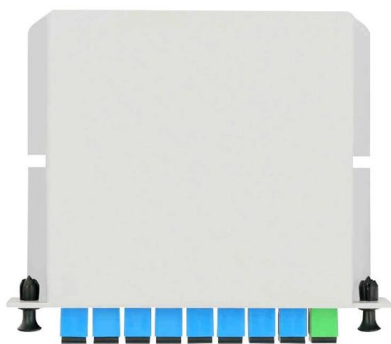
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### Megahertz Spatial Light Modulator Achieves Rapid,

Scientists have developed a new spatial light modulator capable of both high pixel count and rapid refresh rates, overcoming a longstanding

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## High-speed multi-level 512x512 spatial light modulator

Abstract and Figures Recent advancements in our high-speed multi-level (analog) 512x512 liquid crystal Spatial Light Modulator (SLM) will be presented.

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## HOLOEYE spatial light modulators offer 60 Hz frame rate

The PLUTO phase-only spatial light modulators (SLMs) are based on reflective LCOS microdisplays with HDTV resolution (1920 x 1080 pixel) and provide a

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## Spatial Light Modulators

Most other liquid crystal spatial light modulators utilize display backplanes built with standard Nematic liquid crystal, limiting response time to >30 ms. Highest Phase Stability Commercially Available - Our

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## SPATIAL LIGHT

Translucent Spatial Light Modulator The LC 2012 is our most basic Spatial Light Modulator system based on a translucent liquid crystal microdisplay with a resolution of 1024 x 768 pixel (XGA).

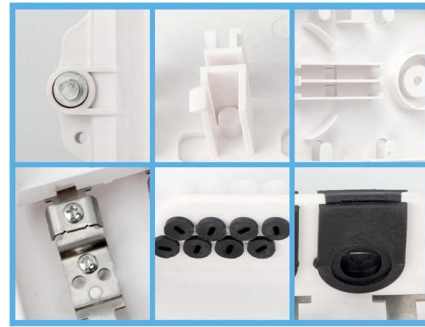
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## A 10 Megahertz Spatial Light Modulator

Here we introduce a new class of spatial light modulator that provides both 2D pixel geometry and high speed. The device operates by encoding spatial information in frequency bins via a broadband

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## LCOS Spatial Light Modulator Technology

LCOS Structure and Function -- Intrinsic polarization modulation / phase modulation for p- and/or s-polarizations -- Phase-only modulation: light linear polarized parallel to director alignment for both

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## [2601.08906] A 10 Megahertz Spatial Light Modulator

Current wavefront shaping technologies face a fundamental dichotomy: spatial light modulators (SLMs) offer high pixel count but suffer from low refresh rates, while acousto-optic

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Ordering information

NO.	1	2	3	4	5	6
Model	SP1201	SP1202	SP1804	SP1805	SP1202	SP1804
Product name	Patch Panel	Patch Panel	Patch Panel	Patch Panel	Patch Panel	Patch Panel
Illustration						
HU	1	2	4	1	2	4
Maximum number of cores	144	288	576	144	288	576
Product size (including module and assembly)	482.07311714 mm	482.07311769 mm	482.07311717 mm	482.07311744 mm	482.07311761 mm	482.07311717 mm
Standard color code	RAL9005	RAL9005	RAL9005	RAL9005	RAL9005	RAL9005

## Spatial Light Modulator - 1920 x 1152

High Speed Analog Meadowlark Optics' Liquid Crystal on Silicon (LCoS) Spatial Light Modulators (SLMs) are uniquely designed for pure phase applications and incorporate analog data addressing

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### Spatial Light Modulators (Refresh Rate:

On FindLight marketplace you will find 4 different Spatial Light Modulators (Refresh Rate: [Contact Us](#)



### Spatial Light Modulators

Modulators (SLMs) are uniquely designed for pure phase applications and incorporate analog data addressing with high refresh rates (1400 Hz). This combination provides users with the fastest

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### MEMS Mirror-Based High-Speed Spatial Light Modulators

Experimental verification confirms the simulation results across SLM formats, target counts, and refresh rates. I then present the analysis, design, and verification of two generations of MEMS mirrorbased



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### 1024 x 1024 Spatial Light Modulator

On-board Memory Wavelengths from 488-1650 nm Meadowlark Optics' Liquid Crystal on Silicon (LCoS) Spatial Light Modulators (SLMs) are uniquely designed

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## User Manual

1.1 Spatial Light Modulator Principles A SLM is a device that modulates light according to a fixed spatial (pixel) pattern. The XY Phase Series SLMs convert digitized data into coherent optical information

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### Spatial Light Modulator 1024 x 1024

Spatial Light Modulator - 1024 x 1024 High Speed Analog - up to 1 kHz Meadowlark Optics' Liquid Crystal on Silicon (LCOS) Spatial Light Modulators (SLMs) are uniquely designed for pure phase

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### LBTEK-Spatial Light Modulator (Meadowlark)

A Spatial Light Modulator (SLM) is an active device based on electro-optic, acousto-optic, magneto-optic, or photorefractive optical effects. It enables real-time

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### Spatial light modulator

A spatial light modulator (SLM) is a device that can control the intensity, phase, or polarization of light in a spatially varying manner. A simple example is an overhead projector transparency.

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## SPATIAL LIGHT MODULATOR

Most other liquid crystal spatial light modulators utilize display backplanes built with standard Nematic liquid crystal, limiting response time to >30 ms. High Stability, High Speed - Our backplanes are

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