Digital Spatial Light Modulator



Overview

We develop custom spatial light modulators with segmented micromirror arrays and a high pixel count—tailored for demanding industrial applications.

Article Content

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

Spatial Light Modulators

Spatial light modulator (SLM) is a general term describing devices that are used to modulate amplitude, phase, or polarization of light waves in space and time.

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.

Spatial light modulators

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Spatial light modulator

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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. Usually when

A 10 Megahertz Spatial Light Modulator

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

High-performance digital shearography integrating spatial light ...

A spatial light modulator (SLM) manipulates the wavefront of the beam through the electro-optic effect of liquid crystal molecules, providing capabilities for digital encoding and dynamic

Spatial light modulator design and generation of structured ...

This paper demonstrates how to design a digital light processor (DLP) based low-cost SLM and de-scribes how to obtain structured electromagnetic waves with the designed SLM.

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SLMs function by dynamically altering the properties of light through a matrix of pixels. These pixels are controlled electrically or optically to influence how light is transmitted or reflected. The modulation

What is Spatial Light Modulator? | Related documents

Digital Micromirror Device Spatial Light Modulator (DMD-SLM) This type uses an array of microscopic mirrors to reflect light, enabling high-speed modulation of

How to realize phase and amplitude completely

How to realize phase and amplitude completely independent light field using spatial light modulator ? In fact, the phase will affect the amplitude

Super-resolution image projection over an extended depth of ...

However, the space-bandwidth product (SBP) of holographic displays is constrained by the limited pixel count of spatial light modulators (SLMs).

Nematic LCoS spatial light modulators

Summary Approaching the ideal high resolution phase addressable modulator is a main task for current SLM (Spatial Light Modulator) development. Different technologies, such as optically addressed,

Hamamatsu LCOS-SLM X15213-15 Reflective Pure-Phase Spatial Light Modulator

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The Hamamatsu LCOS-SLM X15213-15 is a high-performance reflective pure-phase spatial light modulator engineered for precision wavefront control in advanced optical systems operating at

Spatial Light Modulators (SLMs)

Correlation with a spatial light modulator having phase and amplitude cross coupling Pseudorandom encoding of complex-valued functions onto amplitude-coupled phase modulators

The Principle and Development of Optical Maskless

The parallel light beam emitted by the illumination system is reflected by the reflector onto the DMD. By modulating the digital micromirror array, the

Spatial Light Modulators

Discussing the properties of spatial light modulators and how to include them in a comprehensive analysis including optical requirements.

High resolution multispectral spatial light modulators based ...

A spatial light modulator is demonstrated based on Fabry-Perot nanocavity resonances, enabling micrometer-sized pixels and efficient full phase control at multiple wavelengths

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