Spatial Light Modulator Agent



Overview

This is a device that (usually) converts a computer-generated signal into a spatially controlled distribution of intensity or phase, depending on the type of modulator. A very well-known device for intensity modulation is the DLP or DMD from Texas Instruments. The SPIE Digital Library offers a comprehensive collection of research articles, conference papers, and technical documents focused on spatial light modulators (SLMs), reflecting the breadth and depth of this rapidly evolving technology. HOLOEYE´s Spatial Light Modulator systems are based on translucent (LCD) or reflective (LCOS) liquid crystal microdisplays. 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.

Article Content

Spatial light modulators

Key themes include the use of SLMs in optical imaging, holography, adaptive optics, and telecommunications, highlighting their role in enhancing image quality and enabling advanced

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.

Spatial light modulator via optically addressed metasurface

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Emerging demands for dynamic wavefront modulation in holographic displays, augmented/virtual reality, and light detection and ranging require spatial light modulators (SLMs) with

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Spatial Light Modulators

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What are Spatial Light Modulators? Spatial light modulators (SLMs) are a type of transmissive or reflective device that is used to modulate amplitude, phase, or polarization of an optical wavefront in

Piezoelectrically actuated silicon-nitride-based high-speed spatial ...

Here, the authors present a piezoelectrically actuated silicon-nitride-based high-speed spatial light modulator technology meeting those needs.

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. Usually when

Spatial Light Modulators

One of the more complex photonic devices one will encounter as an optical engineer is the spatial light modulator. This is a device that (usually) converts a computer

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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

Spatial light modulators

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Spatial Light Modulator

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The free-carrier dispersion effect with photo-excited free carriers provides all-optical control of the resonance of photonic crystal microcavities. Using this technique, a spatial light

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