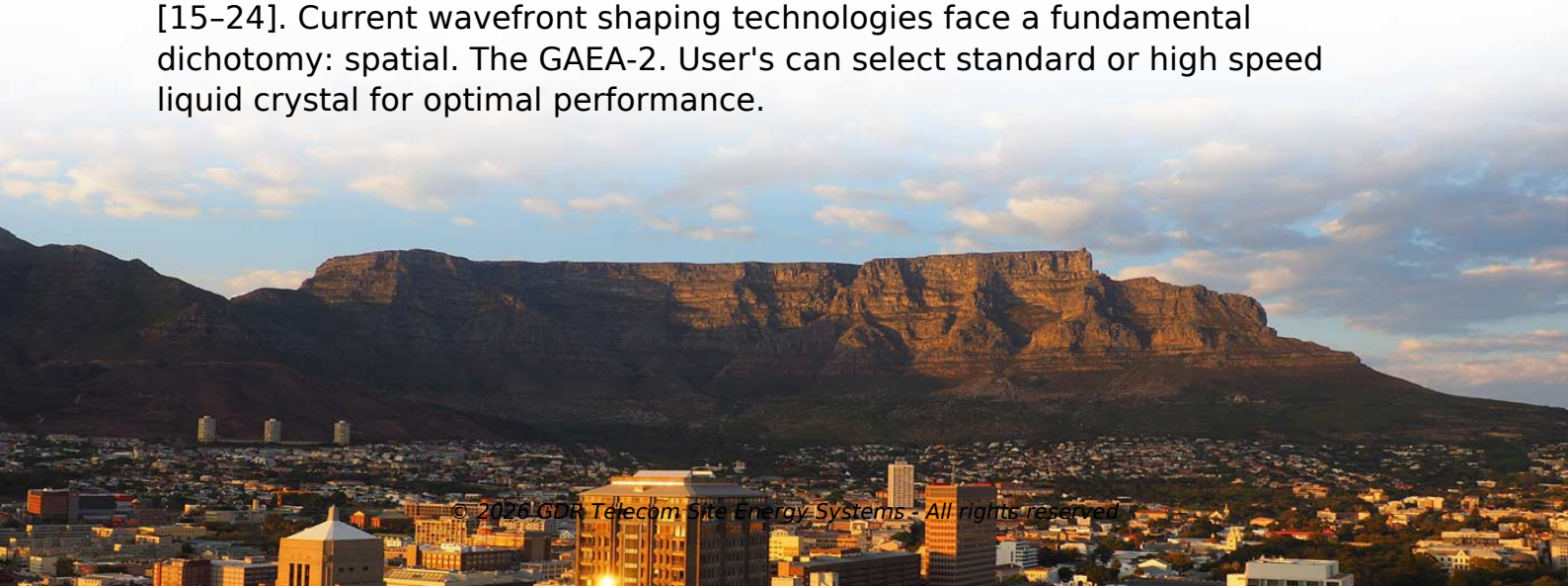
GDR Telecom Site Energy Systems

Phase ripple of spatial light modulators

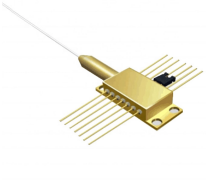
Overview

Phase ripple is quantified by measuring the variation in intensity of the 1st order diffracted spot as compared to the mean intensity while writing a blazed phase grating to the SLM. Modulators (SLMs) are uniquely designed for pure phase applications and incorporate analog data addressing with high refresh rates (1400 Hz). The 1024 x 1024 SLM is good for applications requiring high speed. Rapid and programmable shaping of light fields is central to modern microscopy [1–3], display technologies, optical communications and sensing [4–6], quantum engineering [7–14], and quan-tum information processing [15–24]. Current wavefront shaping technologies face a fundamental dichotomy: spatial. The GAEA-2. User's can select standard or high speed liquid crystal for optimal performance.



Phase ripple of spatial light modulators

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



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

Such a simple device allows for the modulation of the phase, amplitude or polarization of light according to the design details and the presence or absence of additional polarizing elements.

GAEA-2.1 Phase Only LCOS-SLM The GAEA-2.1 Spatial Light Modulator is the highest resolution SLM on the market with extremely small pixel pitch.

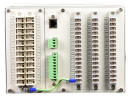
Schematic of a liquid crystal-based Spatial Light Modulator. Liquid crystals are birefringent, so applying a voltage to the cell changes the effective refractive index seen by the incident wave, and thus the ...

Phase ripple is quantified by measuring the variation in intensity of the 1st order diffracted spot as compared to the mean intensity while writing a blazed phase grating to the SLM.

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 ...

Low Phase Ripple - Meadowlark Optics'' Spatial Light Modulators are known for having the highest phase stability on the market. Our backplanes are custom designed with high refresh rates and direct ...

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 ...



In this paper, liquid-crystal spatial light modulators are presented for precise dynamic manipulation of coherent light fields in space, which are used in diffractive optoelectronic and optical ...

This guide focuses on the shaping of coherent light with these tools. We out-line the means by which one can get started with digital holography as well as introduce phase-only, amplitude-only, and ...

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