

4K High Resolution Liquid Crystal Spatial Light Modulator

HDSLM36R Series



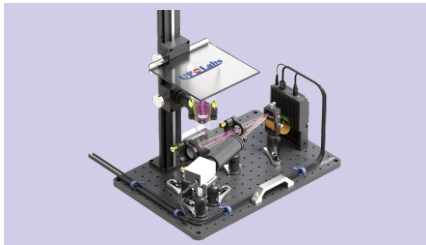
HDSLM36R/HDSLM36RA High Speed Standard Version

- Adjustable LCoS optical module by the angle of left, right, pitched up and pitched down
- Long FPC cable, LCoS optical chip module of small size, Easy integration
- High space bandwidth, High imaging resolution



HDSLM36R-Lite High-speed Compact Version

- Pluggable FPC cable
- Separated structure, Small control board applicable for compact space



HDSLM36R-Kit High-speed Holographic Kit

- Integrated system with optical path ready
- Easy to operate by simply powered-on



HDSLM36R-PCIe Multichannel Version

- 4 LCoS optical modules integrated in one driver board
- Applicable for combination control of 8K4K, maximum allowable application for combination control of 16k8k
- Applicable for multi-SLM cascade optical computing applications
Mix-modulation of amplitude and phase
- Separated structure

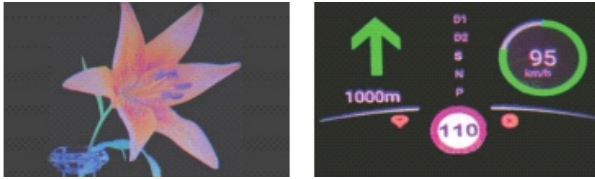
Product Parameter

Types	Modulation Mode	Resolution	Pixel Size	Pixel size	Bit Depth	Fill Factor	Amplitude Contrast	Phase Retardance	Wavelength
HDSLM36R	Phase-onlye	4096*2240 (3840*2160)	60Hz 180Hz	3.6μm	8bit	> 90%	/	> 2.3π@638nm	420~670nm
HDSLM36R-TELCO								> 2.3π@1550nm	1550nm
HDSLM36RA	Amplitude-only						100 : 1	/	420~670nm

Application Fields

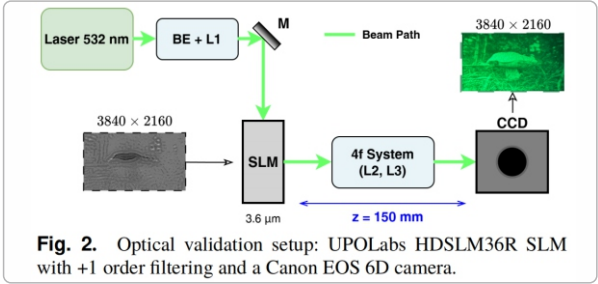
Optical Field Regulation Beam Deflection Optical Split-Interleave-Multiplexing Free Space Optical Communication Ultra High Resolution Imaging Laser Processing/3D Printing Computational Holography Holographic Projection Holographic Storage.

Holographic Case Diagram

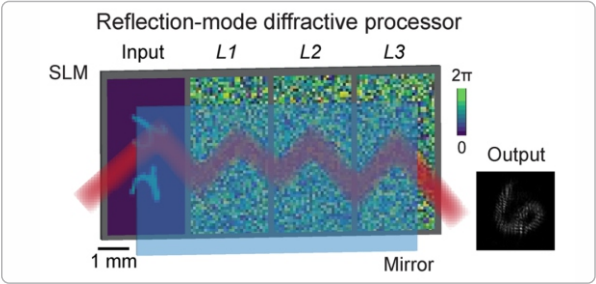


Thesis Case

- Xirun Cheng, Yong Liu, Quan Wang, Xiang Liu, Chaofan Zhang, and Zhenyu Gao, 《LiftHolo: lifted amplitude-guided deep learning for accelerated high-quality computer-generated holography》 Opt. Lett. 51, 4900-4903 (2026)
- F. Wang, Y. Sun, Z. Zhang, et al. “ Diffractive Arithmetic Processing by Conditional Optical Generative Models.” Laser & Photonics Reviews 20, no. 17 (2026): e02983. <https://doi.org/10.1002/lpor.202502983>



Experimental Cases of Computer-Generated Holography (CGH) at University of Science and Technology of China (USTC)



Experimental Cases of Diffractive Optical Computing at Harbin Institute of Technology (Shenzhen, HITSZ)