

High Stability Liquid Crystal Spatial Light Modulator

HDSLM80R Plus Series



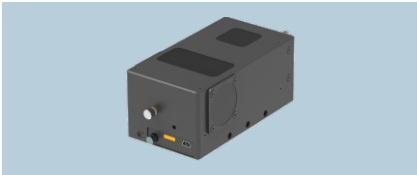
HDSLM80R Plus Integrated Version

- Small size for easy integration
- Adjustable LCoS optical module by the angle of pitched up and pitched down
- Rise-fall main SLM unit
- Built-in water cooling



HDSLM80R Plus Split Version

- SLM screen is designed separated from the power driver board for a flexible optical path
- Good thermal stability



HDSLM80RT Transmissive

- Optical path construction in one step
- Unique design, easy to use

Compared with HDSLM80R SLM, HDSLM80R Plus SLM has been upgraded as a version of 10-bit 1024 gray scale. It features one click to switch between 8-bit and 10-bit, image switching synchronization pulse, programming control GPIO and built-in zero-level deviation. Two structural designs are available for sales: integrated-structure type and separated-structure type.

Product Parameter

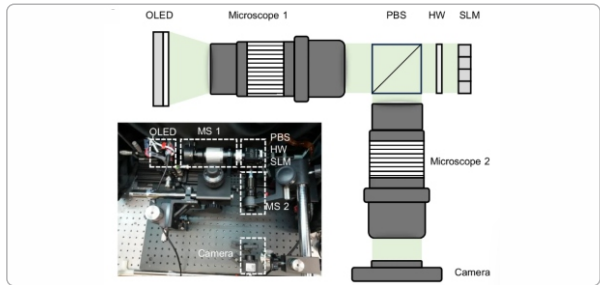
Types	Modulation Mode	Resolution	Frame Rate	Pixel Size	Bit Depth	Fill Factor	Amplitude Contrast	Phase Retardance	Wavelength
HDSLM80R Plus	Phase-only	1920*1200	60Hz	8μm	Freely configuration of 8bit/10bit	> 95%	/	2.6π@1064nm	420~1100nm
HDSLM80R Plus-NIR								2.5π@1064nm	1064±100nm
HDSLM80R Plus-TELCO								2.6π@1550nm	1550±100nm
HDSLM80R Plus-G								2.8π@532nm	420~600nm
HDSLM80RA Plus	Only amplitude						~1000 : 1	/	420~700nm

Thesis Case

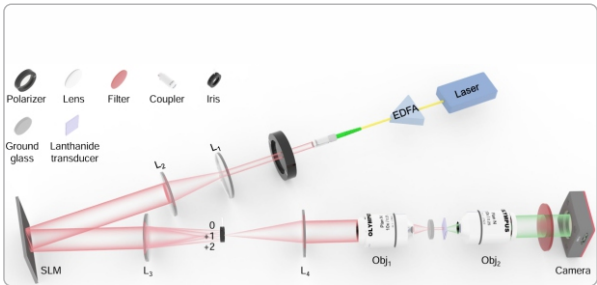
1. Liang, Y., Cao, S., Liu, L. et al. 《Coherent detector for the non-separability measurement of vectorial structured light》. Light Sci Appl 14, 343 (2025). <https://doi.org/10.1038/s41377-025-02035-1>

2. Xu, T., Luo, Z., Liu, S. et al. 《Physical neural networks using sharpness-aware training》. Nat Commun 17, 1766 (2026). <https://doi.org/10.1038/s41467-026-68470-9>

3. Zhu, Sk., Pan, T., Tang, Cx. et al. 《Upconversion optical entropy encoding for infrared complex-amplitude imaging》. Light Sci Appl 15, 158 (2026). <https://doi.org/10.1038/s41377-026-02215-7>



Experimental Cases of Physical Neural Networks at The Chinese University of Hong Kong (CUHK)



Experimental Cases of Complex-Amplitude Imaging at Xiamen University (XMU)