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Teaching Experiment System

Multifunctional Optical Education System

A digital experimental device based on spatial light modulator developed for application in optoelectronic laboratory.

- Position: optoelectronic laboratory
- Objects: colleges and universities optics, optoelectronics or physics, science and engineering
- Textbook: Experimental Guide
- Experimental content: more than twenty kinds of optical experiments, including Fourier optics, traditional teaching experiments such as small-aperture imaging, holographic experiments, classical reproduction of interference diffraction; cutting-edge optical topics such as vortex light, self-focusing, and hollow beams.
- The transmissive teaching system completes slightly different experiments than the reflective teaching system, allowing you to design and develop more experiments on your own as needed.

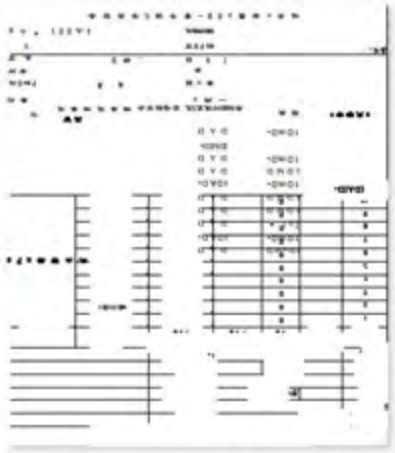
Transmissive system

Reflective system

Features:

- Exercise students' hands
- Real-time adjustment of software parameters
- On course design open
- Combining qualitative and quantitative

Experimental Guide



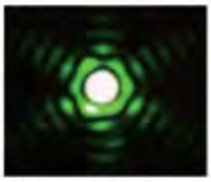
Quantitative Analysis

Exercise students' hands

- Structural Me -asurement
- Amplitude Modulation
- Talbot Image
- Real-time Image Transformation
- Modulation of Polarization States
- Diffraction
- Double Slit Interference
- Imaging and Projection
- Spatial Filtering Experiment
- Measurement of pixel size
- Holographic Reconstruction
- Michelson Interference
- Fresnel Zone Plate
- Dispersion
- Vortex Beam
- Phase-shifted digital holography
- Double Slit Interferometric Phase Measurement
- Beam Transformation
- Hollow Beam
- Interference of plane waves with other waveforms

Part of the experimental effect


Diffraction (Pentagon)


Diffraction (hexagon)

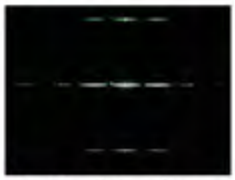

Diffraction (rectangle)


Diffraction (triangle)


Spatial filtering (before filtering)


Spatial filtering (45° slit)


Spatial Filtering (90° Slit)


Double slit interference


Abbe-Porter (-45° slit filter)


Abbe-Porter (horizontal slit filter)


Abbe-Porter
(vertical slit filter)


Talbot image
(positive image)

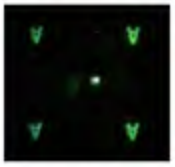

Computational
Holographic Reconstruction


Image transformation
(positive image)


Image transformation
(negative image)