

STA-CIS

Computational Imaging: Ghost Imaging

Reconstruct a spatial image from known illumination patterns and the total intensity measured by a single-pixel detector. STA-CIS combines a stable 532 nm laser, computer-controlled spatial light modulation and reconstruction software.

Measurement method

A computer drives a spatial light modulator to project a sequence of patterns onto the object. A single-pixel detector records the total collected intensity for each pattern. Correlation processing reconstructs the object from the pattern and intensity sequence.

Features

- Stable 532 nm illumination
- Computer-controlled spatial modulation
- Real-time data display and image reconstruction
- Integrated acquisition and analysis workflow

Applications

- Computational and single-pixel imaging research
- Second-order spatial-correlation experiments
- Teaching and development of image-reconstruction methods

System configuration

Parameter	Specification
Model	STA-CIS
Laser wavelength	532 nm
Illumination control	Computer-driven spatial light modulator
Detection	Single-pixel integrated-intensity detection
Output	Reconstructed spatial image and measurement data

Conditions and configuration notes

Spatial resolution, field of view, pattern rate and detector bandwidth are not numerically specified. Confirm them for the required object and reconstruction method.

X-ray and adverse-weather imaging are research applications of the wider technique; the listed 532 nm system does not establish an X-ray or outdoor-weather capability.

Specify your measurement

- Object size and working distance
- Required reconstruction resolution and acquisition time
- Illumination power, pattern count and detector collection geometry

Prepared by Precisometer. Technical review: 24 October 2026. Confirm the supplied configuration, measurement conditions, accessories and warranty with the quotation.

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