

LS-View

Vision through the scanner



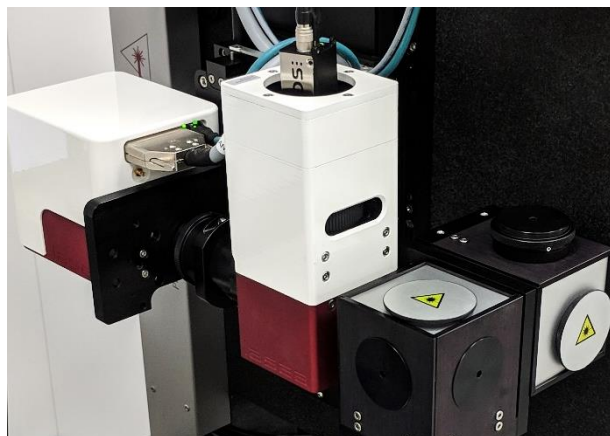
Dedicated to scan field observation before, during, and after the laser process, the LS-View is a passive vision system aligned with the laser beam. **No mechanical stage movement** is required to get a clear image of the workpiece.

Before the process, viewing the scan field center can help positioning the workpiece at the right place. During the process, displaying the ablation allows a visual monitoring of the process. After the process, another visual inspection can validate that the ablation has been done where it was supposed to be.

Including a dichroic optic for wavelength splitting, an objective with its focus setting, an interference filter for getting a sharp image, and a ½" camera, the LS-View offers a direct visualization of the center of the objective field, with **resolutions down to 4 μm**.

In addition to XY positioning, vertical resolution is in the range of the laser Rayleigh length which allows a **fast Z positioning** of the workpiece without having to engrave it.

Directly connected to a computer through an ethernet interface, the LS-View's camera can be displayed in the KYLA®'s software, a full **microprocessing software** able to communicate with several stages, cameras, and lasers. Alternatively, the image can be displayed on another software as any standard camera.

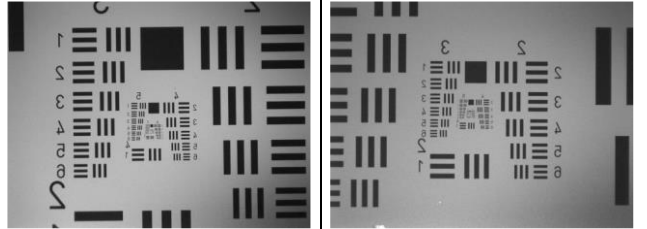


Key features

- Dual wavelength 515 + 1.030 nm
- High resolution image
- Less than 2% laser attenuation
- Focus setting

| Specifications | LS-View |
|-------------------------------|--|
| Input aperture | 22 mm (Advised beam diameter of max 12 mm) |
| Wavelength | Dual wavelength 515 +/- 5 nm & 1.030 +/- 10 nm (343 +/- 3 nm upon request) |
| Max input peak energy density | 80 μJ/mm ² @ 300 fs - 1.030 nm [*] 40 μJ/mm ² @ 300 fs - 515 nm [*] |
| Max input peak power density | 16 W/mm ² @ 300 fs - 1.030 nm [*] 8 W/mm ² @ 300 fs - 515 nm [*] |
| Max input power | 100 W |
| Input polarization | Any |
| Observation wavelength | 700 nm |
| Transmission | > 95 % |
| Output aperture | 22 mm |
| Alignment | Reference irises for easy on-site alignment |
| Size | 230 x 104 x 89 mm |
| Power supply | Power over Ethernet or 24V - 500 mA |
| PC interface | GigE RJ45 |

^{*}: Due to fused silica, at higher energies or powers, self-focusing effects may appear, which could eventually damage the following optical components.

| | F-Theta objectives | |
|--------------------|---|----------|
| Focal length | 50 mm | 100 mm |
| Field size | 4 x 3 mm | 8 x 6 mm |
| Optical resolution | 4 μm | 8 μm |
| USAF test |  | |

These data can change according to LS-Scan input aperture, telecentricity, or lighting

