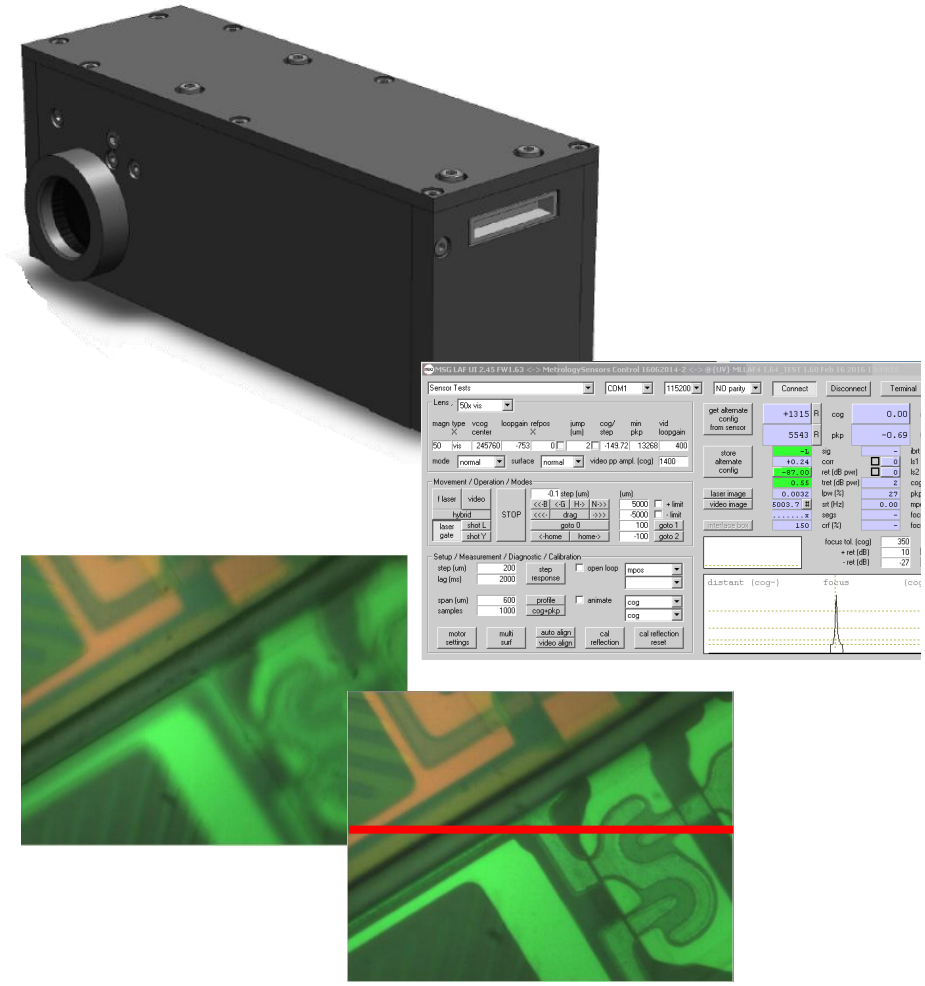
# LAF5S

## *Advanced Laser Auto Focus & Tracking System for microscope automation*



- Applicable to Plan Apo lenses 1x-100x, VIS, IR & UV
- Full laser line with segment processing
- Fast internal image sensor for minimum update latency
- Motor controller interface with analog & digital outputs for a seamless closed loop integration with third party's stepper motor, piezo, voice-coil or servo drives
- Applicable to Plan Apo lenses 1x-150x, VIS, IR & UV
- User interface with enhanced network capabilities for multi sensor operation
- Easy integration of UI functions into the customer software without software library needed

- Multi surface recognition to track focus on a determined surface in multilayer substrates
- User Interface supported optical alignment and motor setup
- Enhanced network capabilities for multi sensor operation

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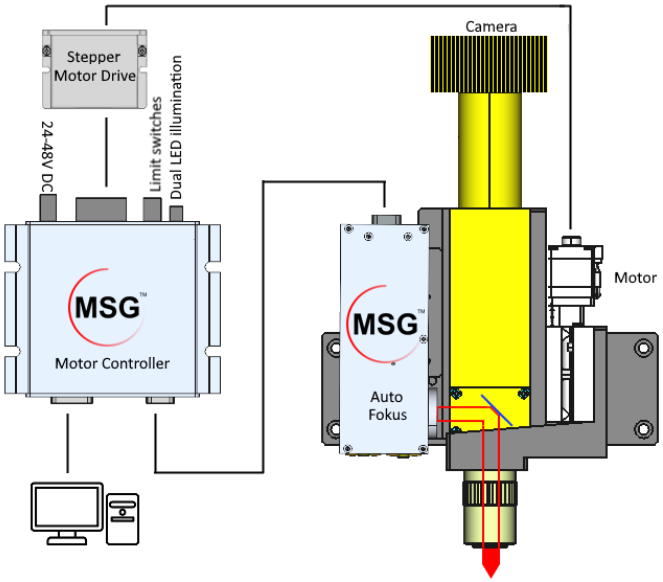
# Specification LAF5

| | | | | | |
|---|---|---|---|---|---|
| Lens Type | Plan APO Infinite Microscope Objectives | | | | |
| Magnification | 5x | 10x | 20x | 50x | 100x |
| DOF (µm) | 14 | 3.5 | 1.6 | 0.9 | 0.6 |
| Sample rate | 4kHz max. | | | | |
| Surface detection Range (On glass)) | >±4500µm | >±4500µm | ±4000µm[1] | ±1000µm[1] | ±200µm[1] |
| Accuracy | Laser mode: +/-0.25 of Lens DOF | | | | |
| Light Source | Safety Class III R Wavelength 660nm-670nm, 785nm, 850nm | | | | |
| Operation Temperature | + 5°C to + 50°C | | | | |
| Beam Shape | 45 ° tilted laser line | | | | |
| Weight Sensor + cable | 400gr+ 140gr | | | | |
| Weight Interface | 400gr | | | | |
| Recommended port filter | Beamsplitter 50/50 @670nm or | | | | |
| Power | In | | +12V DC sensor only, 24-48V sensor with Motor controller | | |
| Distance Output | Analog | | 0- 10V | | |
| Signal Quality Output | Analog | | 0- 10V | | |
| Communication | Digital | | RS232 | Ethernet optional | |
| Laser ON/OFF/ Camera sync | In | | Opto-isolated input, 3-48V DC 5mA curren | | |
| *All data refer to measurement on plain glass | | | | | |

Table 1

[1]Use of Parasitic Reflection Calibration Function required

## Working Principle






① Auto Focus Sensor LAF

② LAF-C2 motor controller