

Fiber-Coupled MEMS-Mirror Laser Scanners



2D Fiber-Coupled Laser Scanners are compact and versatile units originally designed for generating SPIM light sheets. A user-provided light beam enters the scanner on a standard fiber optic connector. The beam is steered in the sample plane using an electronically-controlled galvo comprising an integrated two-axis MEMS mirror devices, providing rapid response and negligible vibration across the full field of the microscope sample. An optional anti-stripping mirror varies the beam's angle of incidence on the sample to mitigate shadowing effects. Adjusting the included iris changes the light sheet thickness and depth of focus. The beam can be effectively turned off or "blanked" by simply steering the beam to one corner. The scanner is interfaced to the microscope using a C-Mount port.

Specifications

Light Input	FC/PC fiber optic connector (optically FC/APC)
Scanner Operating Frequency	Approximately 1 kHz (>200 Hz sheet rate)
Scan Range	16 mm Ø field of view (at C-Mount focus)
Beam Blanking	<0.1% Transmission
Max Input Power	>500 mW
Control Electronics	TG-1000 Micro mirror drive card required (uses internal control or external analog inputs)
Anti-Striping	Available on request
Mechanical Coupling	C-Mount

Applications

- Light Sheet Microscopy
- Optogenetics
- Local Uncaging
- FRAP

Features

- C-Mount attachment and image plane
- Aperture control with iris and/or adjustable slit mask
- Scanner deflection beam blanking

C-Mount Gaussian Beam Scanner

C-Mount Gaussian Beam Scanner is a 2-axis focused beam scanner. The laser, a single mode fiber, is coupled with FC/APC or FC/PC collimator. It provides focused scan-plane at the female C-mount. Uses with the TGMM4 controller.

- Collimator focal length: 7.5, 12.5, or 20 mm
- FC/PC or FC/APC

MM-SCAN_1.2 SLS1.2

C-Mount Cylindrical Lens Scanners

C-Mount Cylindrical Lens Scanners is a light sheet generators equipped with XY scan mirror and coupled to the light source with one FC/PC or FC/APC fiber optic cable. 1.2mm or 2.4mm scanner mirrors can be specified. A Focused light sheet is provided at the C-Mount focal plane.

MIM-CYL_1.2 SCS1.2

MIM-CYL_2.4 SCS2.4

Cube-MEMS-Mirror Scanner

Cube-MEMS-Mirror Scanner is a cube assembly with a 2.4 mm diameter XY scanning mirror. Use with the TGMM4 controller. Includes integrated two-axis MEMS-Mirror scanner and CUBE-III assembly. The C-60-TUBE_70D is the suggested scan lens to use with the Cube- MEMS-Mirror Scanner.

C60-MMSC-2.4 SCN2.4