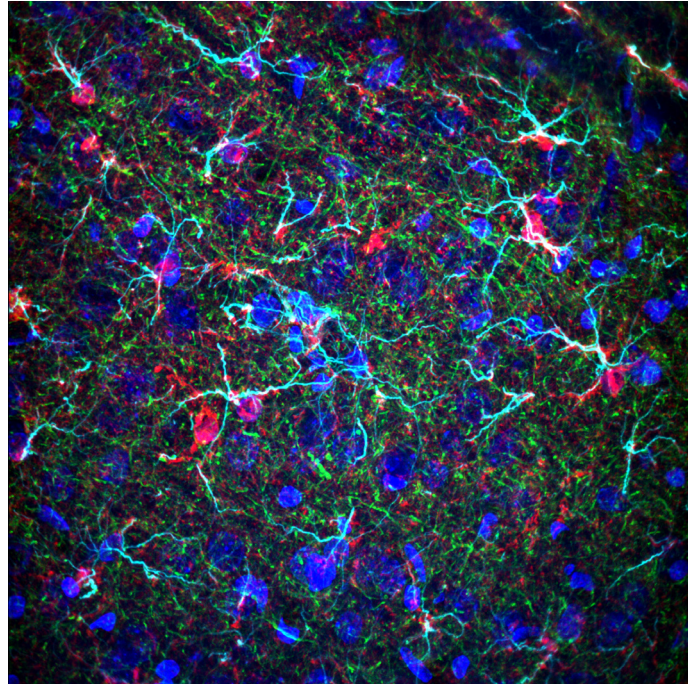


Overview

- ◆ Complete Confocal Imaging Microscopes
 - Upgradeable Single-Channel Systems
 - Fully Equipped Upright or Inverted Four-Channel Systems
- ◆ Full-Frame 4096 x 4096 Pixel Images
 - 4096 x 4096 Pixel Uni-Directional Scans
 - 2048 x 2048 Pixel Bi-Directional Scans
- ◆ Galvo-Galvo or Galvo-Resonant Scanners
- ◆ Upright Systems Based on Modular Cerna® Microscope System to Support Expansion:
 - Widefield Viewing Accessories
 - Epi-Illumination
 - DIC or Dodt Imaging
 - XY Movement of Microscope and/or Sample
 - Other Modular Cerna Components
- ◆ Add-On Confocal Upgrade Available for Inverted Research-Grade Microscopes from Other Manufacturers

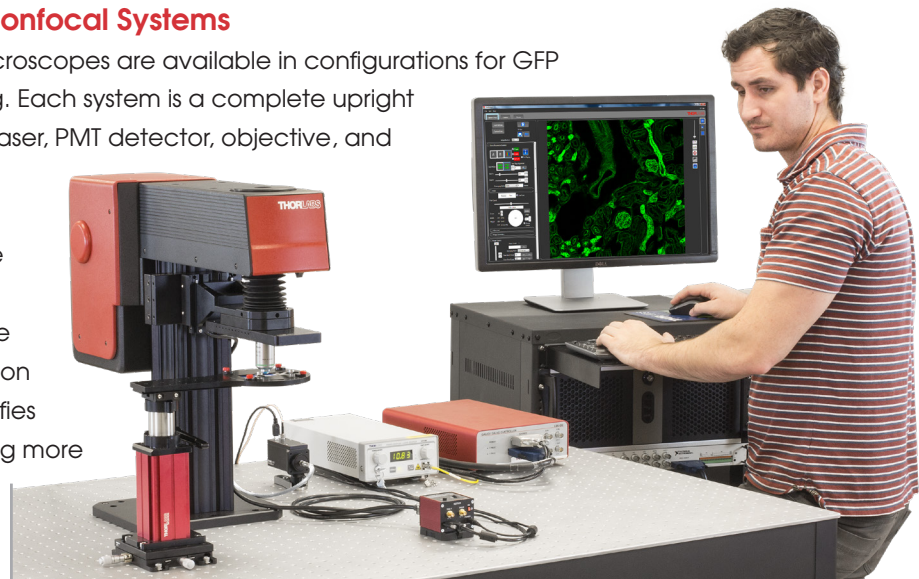


Wild-type mouse brain section (30 μm) tagged with DAPI (405 nm), Alexa 488 anti-S100B, Alexa 555 anti-Neurofilament, and Alexa 633 anti-GFAP. Acquired with a 4-channel inverted confocal microscope. Sample courtesy of Lynne Holtzclaw, NIH/NICHD/MIC.

Thorlabs' Confocal Systems are designed to meet the needs of a wide variety of labs and range from single-channel to fully-equipped multi-channel configurations. The microscopes can have up to four excitation and detection channels, galvo-galvo or galvo-resonant scanners, and multi-alkali or high-sensitivity GaAsP PMTs.

Upgradeable Single-Channel Confocal Systems

Thorlabs' Single-Channel Confocal Microscopes are available in configurations for GFP fluorescence or reflected light imaging. Each system is a complete upright confocal microscope and includes a laser, PMT detector, objective, and motorized Z-axis control. Based on our Cerna® Modular Microscopy Platform, these upright confocal systems can be easily upgraded and customized with Cerna components, a range of sample mounts, and Thorlabs' cage construction accessories. The modular design simplifies future system upgrades, such as adding more detection and excitation channels, a 16-position motorized pinhole wheel, and a dichroic mirror for epi-fluorescence image acquisition.



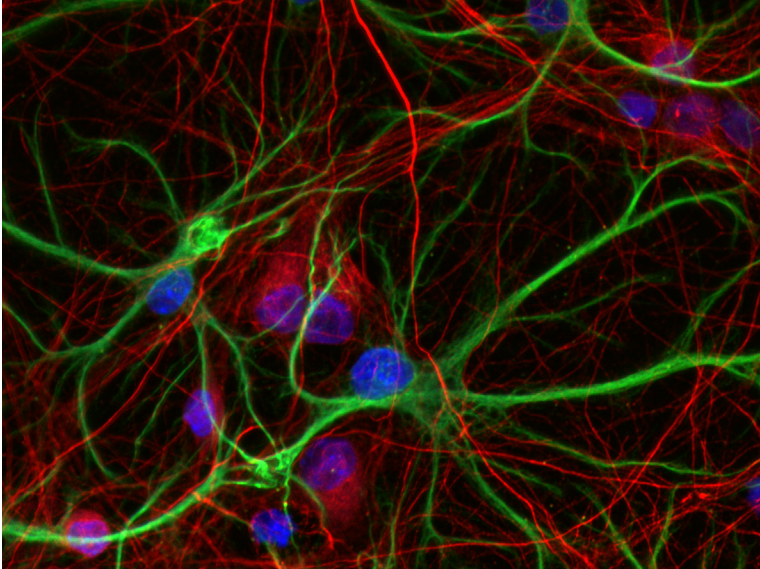
This upgradeable single-channel confocal system for GFP fluorescence imaging includes a computer, DAQ card, and ThorImage®LS Data Acquisition Software. The optical table and rack are sold separately.

Specifications

Item #	System Type	Laser Wavelength	Scan Head	Objective	Pinhole	Filters	PMT Detection	Price
CM100	Reflected Light	660 nm (Red)	Galvo-Galvo	RMS20X	$\varnothing 75 \mu\text{m}$, Optimized for Included 20X Objective	50:50 Beamsplitter with Polarizers & Quarter-Wave Plate	One Multi-alkali PMT	\$37,851.54
CM201	GFP Fluorescence	488 nm (Blue)		N20X-PF	MD498 Dichroic with MF525-39 Emission Filter	\$44,269.98		

4-Channel Confocal Systems

Thorlabs' complete, fully equipped confocal systems are available with galvo-galvo or galvo-resonant scan heads to support a variety of confocal imaging applications. Select up to four excitation lasers with wavelengths from 405 nm to 642 nm, all integrated into a fiber-coupled housing. Each system can be equipped with up to four multi-alkali or high-sensitivity GaAsP PMTs housed in a detection module with interchangeable filter cubes. Each system includes emission, excitation, and dichroic filter sets selected to complement the wavelengths in the multi-channel laser source and the emission wavelengths of the fluorophores of interest.



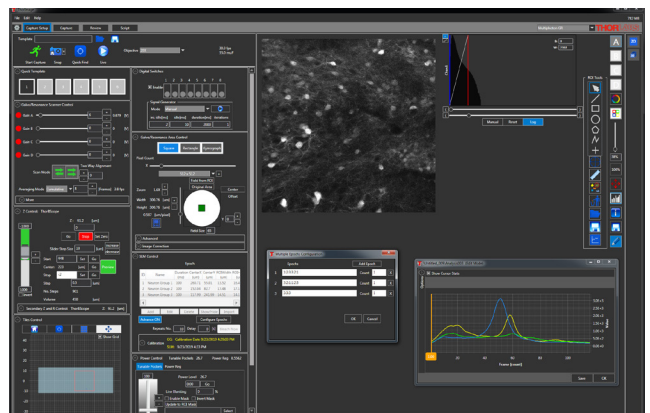
Neurofilaments (Red), Glia (Green), and Nuclei (Blue) in a Rat Hippocampus

Confocal Upgrade to Existing Microscopes

In addition to our complete confocal systems, Thorlabs also offers an upgrade package designed to add confocal imaging capabilities to research-grade inverted microscopes. This add-on includes all the necessary parts for converting your existing microscope into a confocal system: a laser source, a scan head with a scan lens, a motorized pinhole wheel, and a PMT detection module.

Acquire Images with ThorImage[®]LS

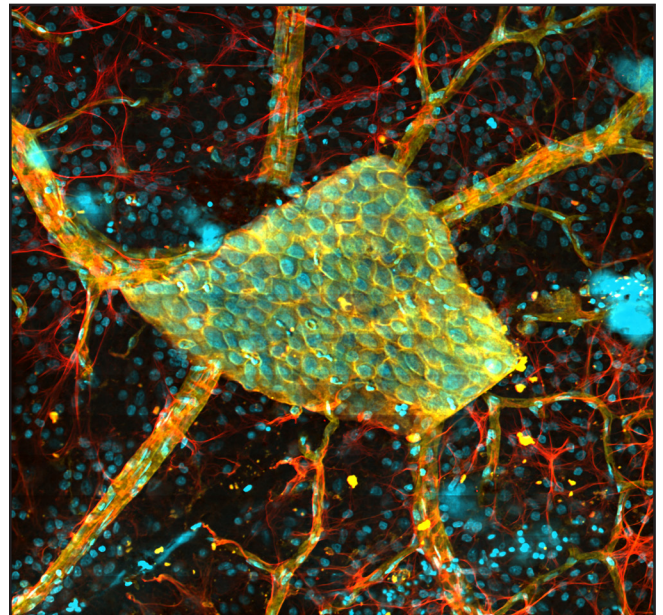
- ◆ Included with Every Confocal Purchase
- ◆ Synchronize and Trigger External Hardware and Events
- ◆ Multi-Dimensional Data Acquisition and Display
- ◆ Region of Interest Scanning Including XY, XYZ, and XYZT Scanning Modes
- ◆ Scripting and Image-Tiling Capability
- ◆ Multi-User Operation
- ◆ Open Source
- ◆ Lifetime Support and Updates



Screenshot of ThorImageLS Workspace

Features

- ◆ Upright or Inverted Configurations
- ◆ Single Mode Fiber-Coupled Laser Source with up to 4 Excitation Channels
 - Wavelengths from 405 nm to 642 nm
- ◆ Galvo-Galvo Scanner: Up to 2 FPS for 512 x 512 Pixel Bi-Directional Scans
- ◆ Galvo-Resonant Scanner: High-Speed Imaging (400 FPS) at 512 x 32 Pixels
- ◆ Up to 4 Detection Channels with Multi-alkali or High-Sensitivity GaAsP PMTs
- ◆ Exchangeable Fluorescence Filter Sets
- ◆ Motorized Pinhole Wheel with 16 Round Pinhole Sizes from Ø25 µm to Ø2 mm
- ◆ XY Microscope Translator
- ◆ Transmitted Illuminator with DIC



Stitched confocal fluorescence image of rat retina stained with DAPI, Alexa Fluor[®] 555, and Alexa Fluor[®] 633. Sample courtesy of Dr. Jennifer Kielczewski, National Eye Institute, National Institutes of Health, Bethesda, MD.

To learn more about our Confocal Microscopes or to request a quote, please contact ImagingSales@thorlabs.com.

56 Sparta Avenue ◆ Newton, New Jersey 07860 ◆ Sales: 973.300.3000 ◆ www.thorlabs.com