Scientifica Buyer’s Guide

Multiphoton Imaging Systems

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# Multiphoton Imaging Systems

The components of Scientifica multiphoton systems are designed to be as flexible and modular as possible. Here we demonstrate the different combinations of frames, scan heads and detectors available, to suit your experimental requirements. We have also listed the various options that are available for each component, to help you choose the best for your research.

All Scientifica multiphoton systems are available as complete hardware solutions. Alternatively, modules can be purchased separately for integration into existing systems.

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**HyperScope**

**Flexible system with various scanning configurations for large back aperture objectives**

The HyperScope can be a single scan head for imaging or a dual scan head for simultaneous imaging and photostimulation/uncaging. A variety of scanning configurations are available; scan mirrors on the imaging path can be arranged as a galvo-galvo (X,Y), resonant-galvo (X,Y) or resonant – galvo – galvo (X,X,Y) scan head.

The HyperScope scan head is available with either VivoScope or SliceScope frames.

**Applications**

*(in vivo or in vitro)*

- Three-photon imaging
- Two-photon imaging
- Second harmonic generation
- Two-photon photostimulation
- Fluorescence lifetime imaging
- All-optical interrogation of neurons

Find out more
**MP-1000**

Galvo system for small back aperture objectives

The MP-1000 is a multiphoton galvanometer scanning system designed for small back aperture objectives and compatible with the SliceScope frame.

It consists of one separated pair of X and Y galvanometers with 3mm scan mirrors. The system is designed to obtain diffraction limited resolution with small back aperture objectives (<10mm). The scan head is compatible with the use of standard epifluorescence and CCD/CMOS camera imaging.

**Applications**

*(in vivo or in vitro)*

- Two-photon imaging
- Second harmonic generation
- Fluorescence lifetime imaging

Find out more
The MP-2000 is a multiphoton galvanometer scan head that is designed for large back aperture objectives. This can be installed on the SliceScope frame.

It consists of one separated pair of X and Y galvanometers with 3mm mirrors. The system is designed to obtain diffraction limited resolution with large back aperture objectives (=20mm).

Applications
(in vivo or in vitro)

- Three-photon imaging
- Two-photon imaging
- Second harmonic generation
- Fluorescence lifetime imaging
The MP-2050 is a resonant scan head that can be installed on the SliceScope frame.

It consists of a separated X resonant galvanometer (8kHz) and Y galvanometers with 4mm mirrors. The system is designed to obtain diffraction limited resolution with large back aperture objectives (=20mm).

**Applications**

(in vivo or in vitro)

- Three-photon imaging
- Two-photon imaging
- Second harmonic generation
- Fluorescence lifetime imaging

Find out more
MP-2070
VivoScope resonant system for large back aperture objectives

The MP-2070 is a resonant scan head that can be installed on the VivoScope frame, for in vivo multiphoton imaging.

It consists of a separated X resonant galvanometer (8kHz) and Y galvanometers with 4mm mirrors. The system is designed to obtain diffraction limited resolution with large back aperture objectives (<20mm).

Applications
(in vivo)
- Three-photon imaging
- Two-photon imaging
- Second harmonic generation
- Fluorescence lifetime imaging

Find out more
MP-100794
VivoScope galvo system for large back aperture objectives

The 100794 is a galvo scan head that can be installed on the VivoScope frame, for in vivo multiphoton imaging.

It consists of one separated pair of X and Y galvanometers with 3mm scanning mirrors. The system is designed to obtain diffraction limited resolution with large back aperture objectives (=20mm). The scan head is compatible with the Scientifica VivoScope and provides extra distance between the objective and the VivoScope column (215mm).

Applications (in vivo)
- Three-photon imaging
- Two-photon imaging
- Second harmonic generation
- Fluorescence lifetime imaging

Find out more