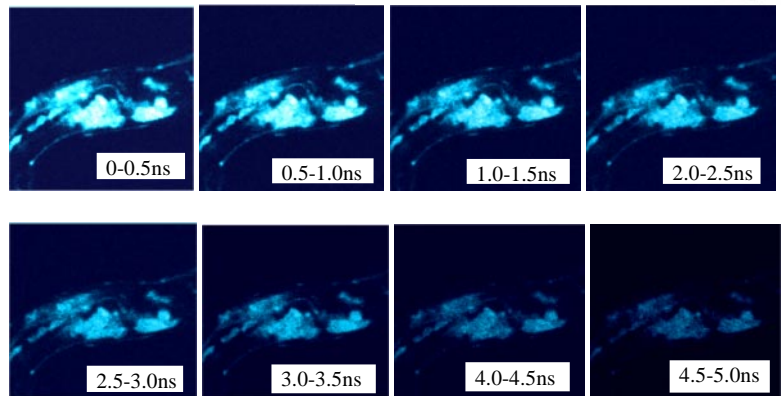
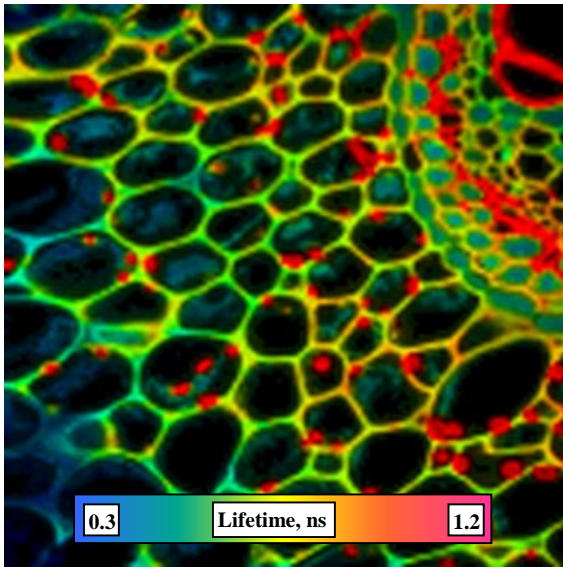


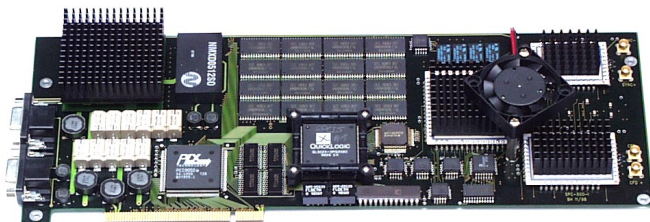
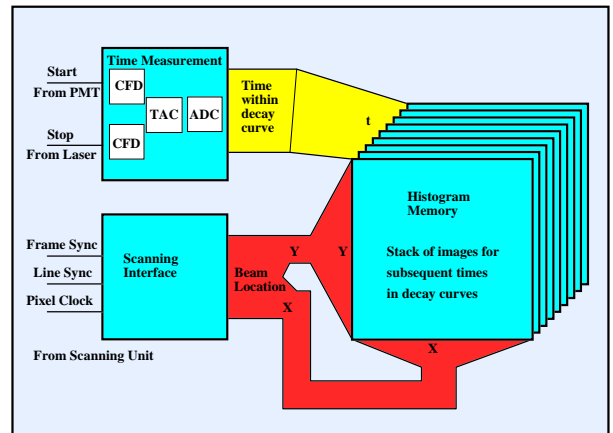
Lifetime Upgrade Kit for Leica TCS SP2

Fluorescence lifetime imaging with ps resolution
Ultra-high sensitivity due to TCSPC technique
Zoom and image rotation functions of TCS SP2 applicable
FRET experiments
Fluorescence quenching
Autofluorescence
Separation of chromophores by lifetime



Autofluorescence of a nematode. Fluorescence images for consecutive time intervals after excitation.

The setup employs an advanced TCSPC imaging technique featuring both high count rate and low differential nonlinearity. It contains the usual building blocks (CFDs, TAC, ADC) in the 'reversed start-stop' configuration together with a scanning interface and a large histogram memory integrated on one PC board. For each photon the TCSPC module determines the time within the fluorescence decay function and the location within the scanning area. These values are used to address a histogram memory in which the events are accumulated. Thus, in the memory the distribution of the photon density over X, Y, and the time within the fluorescence decay function builds up. The result can be interpreted as a two-dimensional (X, Y) array of fluorescence decay curves or as a sequence of fluorescence images for different times (t) after the excitation pulse.



Requirements to SP2 Microscope

Ti:Sa Laser installed
 Non-descanned output installed ¹⁾

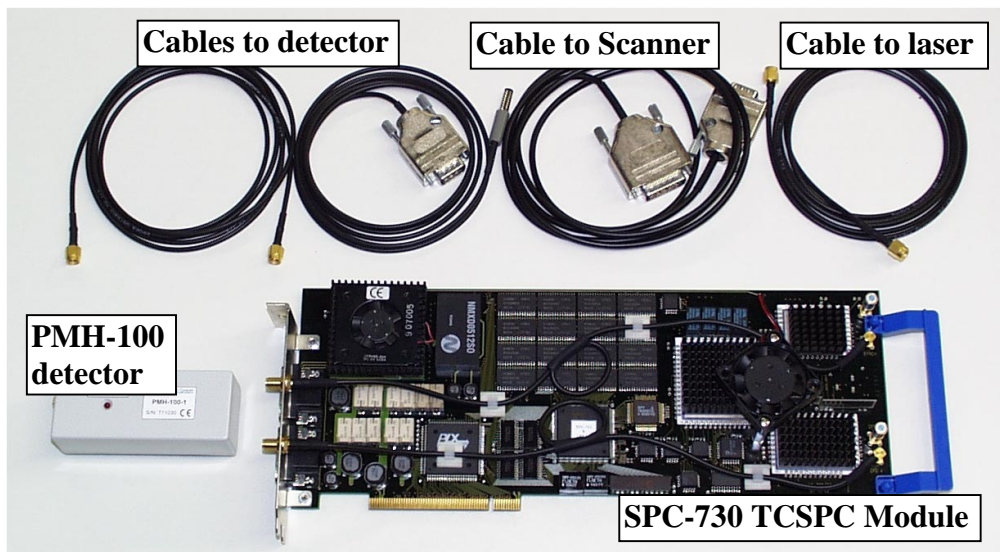


Becker & Hickl GmbH
 Nahmitzer Damm 30
 12277 Berlin, Germany
 Tel. +49 30 787 56 32 Fax +49 30 787 57 34
 info@becker-hickl.com www.becker-hickl.com

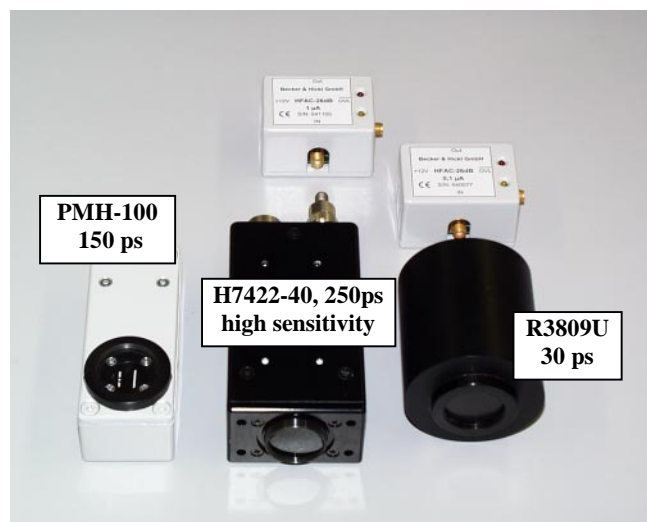
US Representative:
Boston Electronics Corp
 91 Boylston Street, Brookline,
 Massachusetts 02445 USA
 Tel: (800) 347 5445 or (617) 566 3821, Fax: (617) 731 0935
 www.boselec.com tcspc@boselec.com



FLIM Upgrade Kit - Basis Version



Detector Options



Part List

Detector	PMH-100-0	H7422-40	R3809U-52
Attached to	NDD Output ¹⁾	NDD Output ¹⁾	NDD Output ¹⁾
Preamplifier	none	HFAC-26-1	HFAC-26-01
Controller	DCC-100 ²⁾	DCC-100	DCC-100
HV Power Supply	none	none	FuG HCN-14-3500A
Adapter		NDD Adapter Assembly	
Data Analysis		SPCImage data analysis software	

- 1) bh will grant no warranty for detectors damaged by exposure to roomlight or light from halogene or mercury lamp
 2) Recommended

For more information please download or call for

Manual of SPC-730 TCSPC imaging module
 Upgrade guidelines for TCSPC laser scanning microscopes
 Application note: Fluorescence Lifetime Imaging with the Zeiss LSM 510 and the Becker & Hickl SPC-730 TCSPC Module
 SPC-730 data sheet
 PMH-100 data sheet
 HFAC-26 data sheet

Becker & Hickl GmbH
 Tel. +49 30 787 56 32 Fax +49 30 787 57 34
 info@becker-hickl.com www.becker-hickl.com

