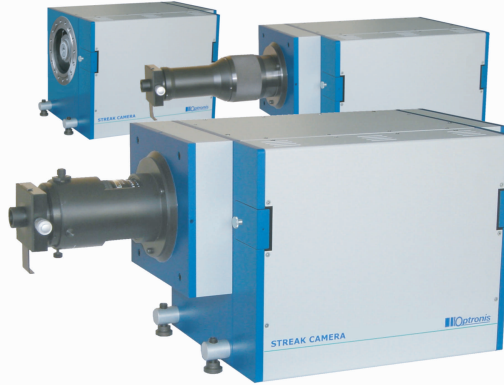


STREAK CAMERA FAMILY

Optoscope-SC



Streak Cameras
with modular
design for analysis
of ultrafast optical
phenomena

- ▶ Photocathode 8 to 35 mm
- ▶ Down to 2 ps resolution
- ▶ Trigger sweep up to 4 MHz
- ▶ Synchroscan up to 250 MHz
- ▶ Wide spectral range
- ▶ X-Ray version available
- ▶ Ethernet interface
- ▶ Complete software control



Optoscope-SC

System

The Optoscope-SC streak camera family is designed to provide maximum flexibility for a broad range of applications. Identical control structures and similar mechanical interfaces are used in all units. This concept allows to use different application optimised streak tubes. Various sweep units for trigger mode and synchroscan deflection are available. The modular design allows to adapt the system easily. An Ethernet (TCP/IP) interface is integrated to control the system.

Each Optoscope-SC streak camera system consist of a main unit (SC-*nn*) completed with one or more sweep units, input optics and readout camera with control software. An image intensifier can be added for highest sensitivity. For simple system control a control pad as well as the OptoControl software is provided. Trigger signal converters and trigger signal conditioning units are available with other accessories to adapt the system to particular requirements.

Features

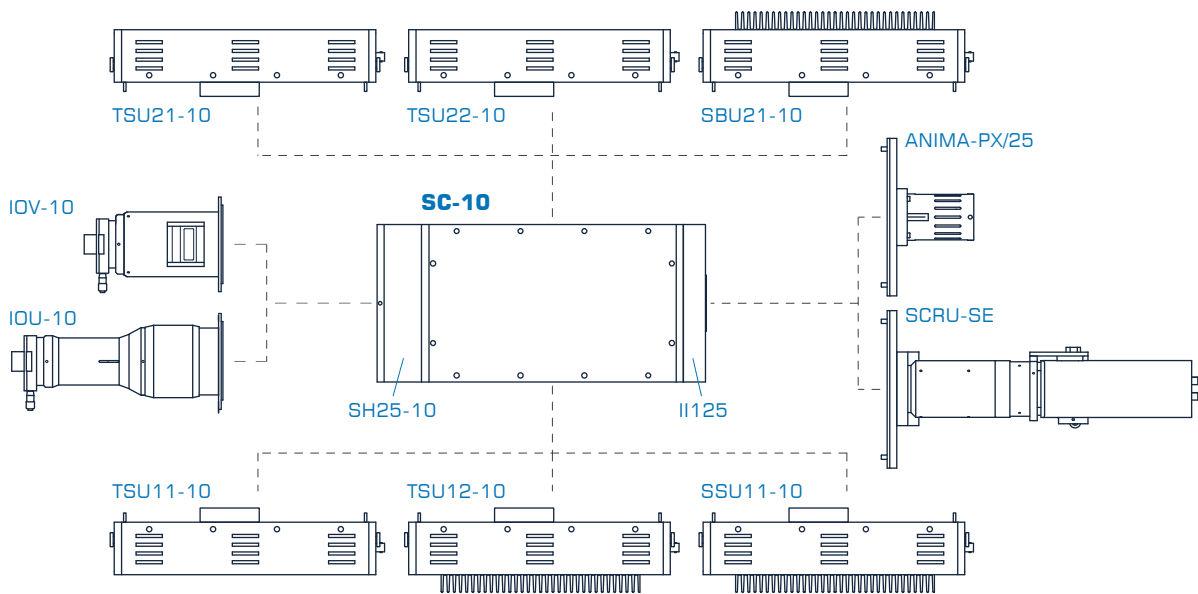
- ▶ Modular design
- ▶ Exchangeable sweep units
- ▶ Local control via control pad
- ▶ Easy to use software package
- ▶ 100 MHz Ethernet interface
- ▶ TCP/IP protocol



SC-10

- ▶ Broad range of scientific applications
- ▶ Temporal resolution down to 2 ps
- ▶ Synchroscan up to 250 MHz
- ▶ Dual sweep possible
- ▶ High dynamics

The SC-10 is designed for most flexibility and highest temporal resolution. It allows to use input optics for visible light and UV light down to 200 nm. Sweep units for trigger mode or synchroscan mode operation are available. Either a fiber optically coupled CCD camera (ANIMA-PX/25) or a cooled CCD camera (SCRU-SE) can be used.



Main unit

| | |
|---------------------|--------------------------|
| Photocathodes types | S20, S20LN, Bialkali, S1 |
| Photocathode area | 8 mm × 2 mm |
| Temporal resolution | 2 ps (at < 15 ps/mm) |
| Magnification | typ. 2.0 |

Sweep modes

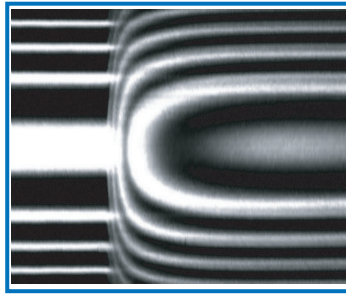
| | |
|-------------------|------------------|
| Trigger mode | 200 ps - 100 ms |
| Synchroscan mode | 300 ps - 4 ns |
| Synchroscan freq. | 40 MHz - 250 MHz |
| Dual sweep mode | available |

Optoscope-SC

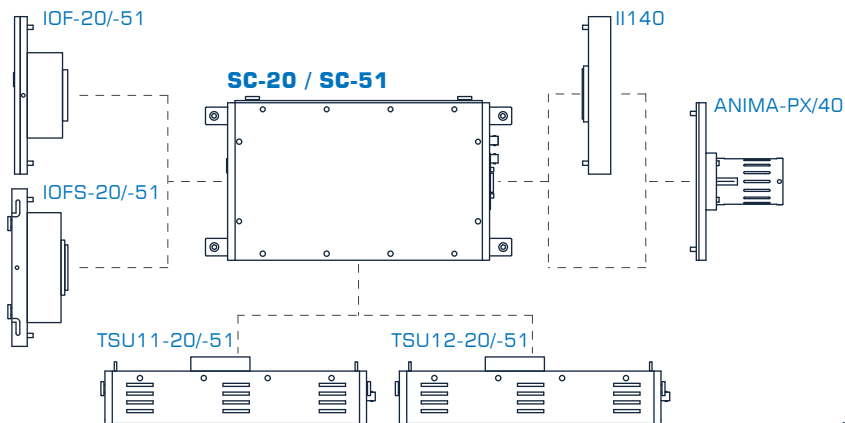
SC-20 / SC-51

- ▶ Photocathode length 35 mm
- ▶ UV-sensitive version down to 300 nm (SC-20)
- ▶ Laser Doppler Interferometry
- ▶ Detonics

The SC-20 and SC-51 are large format photocathode streak cameras for detonics and laser Doppler interferometry. The fiber optic input allows direct coupling with fixed slits.



Typical measurement in a laser Doppler interferometry setup



Main Unit SC-20

| | |
|---------------------|---------------------------|
| Photocathodes Types | S20, S25, Bialkali, S20UV |
| Photocathode Area | 35 mm × 4 mm |
| Temporal Resolution | typ. 200 ps (streak tube) |
| Magnification | typ. 0.8 |

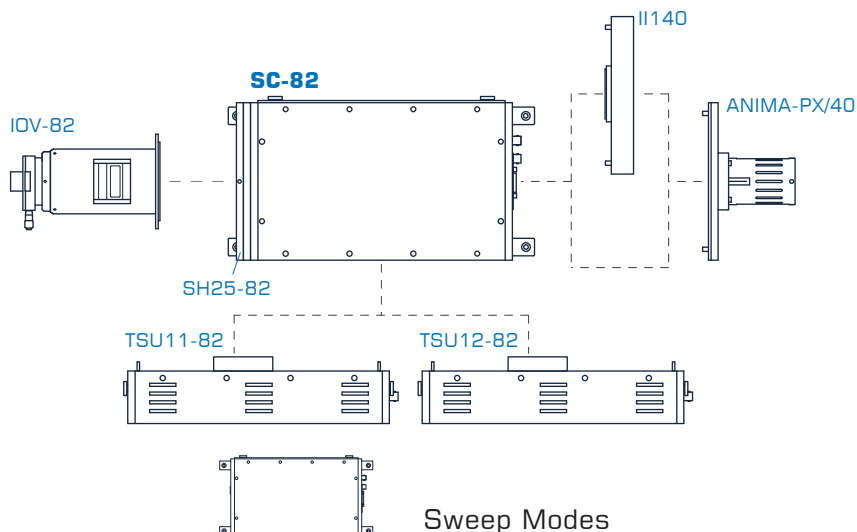
Main Unit SC-51

| | |
|---------------------|---------------------------|
| Photocathodes Types | S20, S25 |
| Photocathode Area | 35 mm × 4 mm |
| Temporal Resolution | typ. 150 ps (streak tube) |
| Magnification | typ. 0.75 |

SC-82

- ▶ High dynamics
- ▶ High temporal resolution
- ▶ Bilamellar streak tube design
- ▶ UV-sensitive version down to 200 nm available

A Bilamellar streak tube is integrated to provide high dynamic range performance and picosecond temporal resolution. The SC-82 can be used for high power laser diagnostics.



Main Unit

| | |
|---------------------|-------------------------|
| Photocathodes types | S20, S25, S1 |
| Temporal resolution | 1 ps (typ. streak tube) |
| Photocathode area | 15 mm × 1 mm |
| Screen area | 23 mm × 30 mm |

Sweep Modes

| | |
|-------------------|---------------------|
| Trigger mode | 1.2 ns - 150 μs |
| Trigger frequency | 0 - 20 Hz |
| Sweep units | Slow and fast types |
| Dual sweep mode | - |

