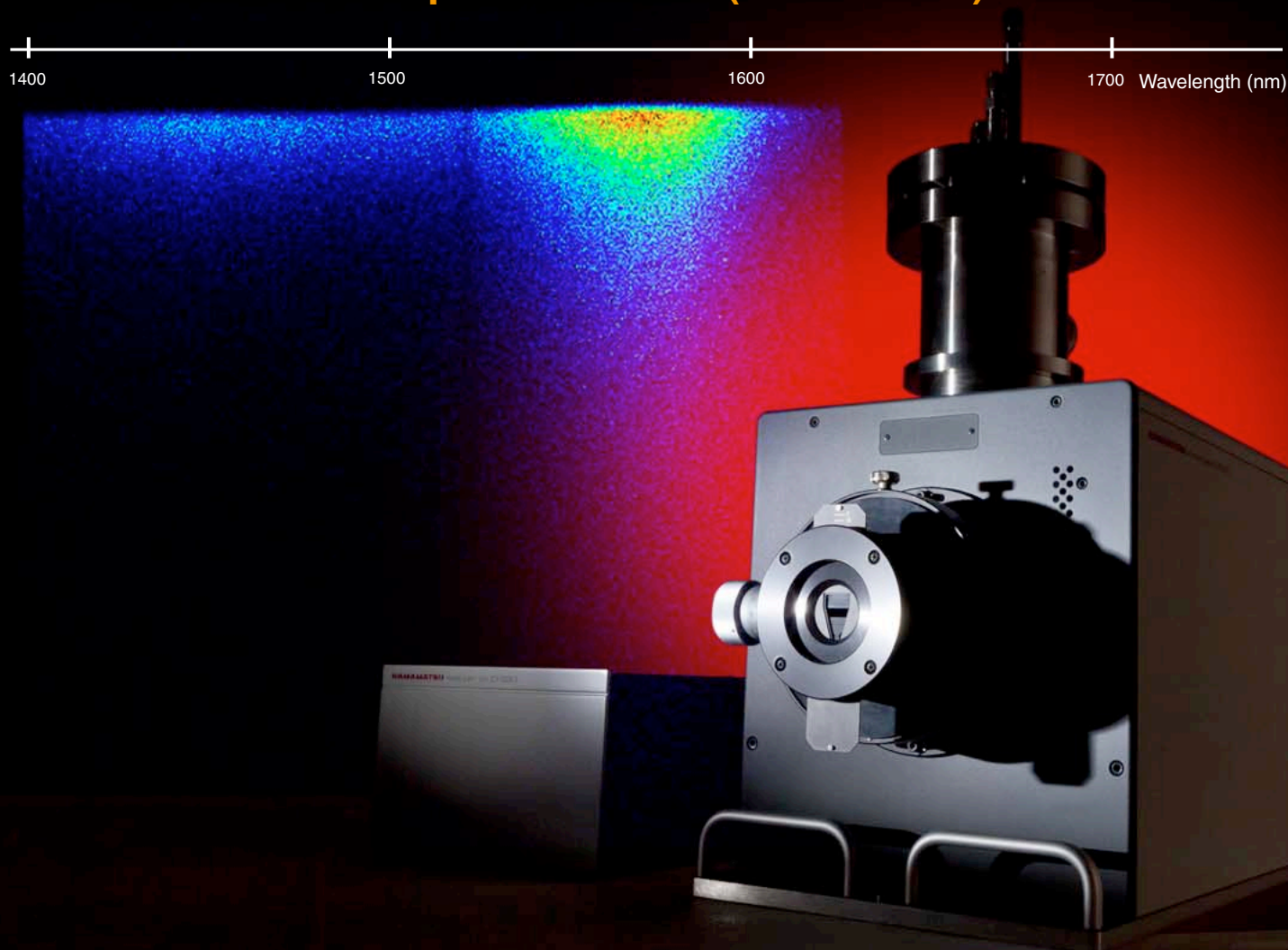


# NIR streak camera C11293-02

For picosecond time-resolved measurements of low level light emissions in the near-infrared region (1000 nm to 1650 nm) with semiconductor photocathode (InP/InGaAs)



The NIR streak camera C11293-02 delivers much higher sensitivity in the near-infrared region than previously available. The C11293 utilizes a Hamamatsu streak tube with semiconductor photocathode (InP/InGaAs) to make picosecond time-resolved measurements of low-level light emissions in the near-infrared region. The C11293-02 enables simple and efficient measurements with sweep repetition rates up to 20 MHz. The streak tube provides high signal-to-noise ratio with low dark current by means of photocathode cooling to  $-80\text{ }^{\circ}\text{C}$ . Applications include time-resolved spectroscopy measurements of various semiconductor materials as well as time response of various light sources and devices.

#### Features

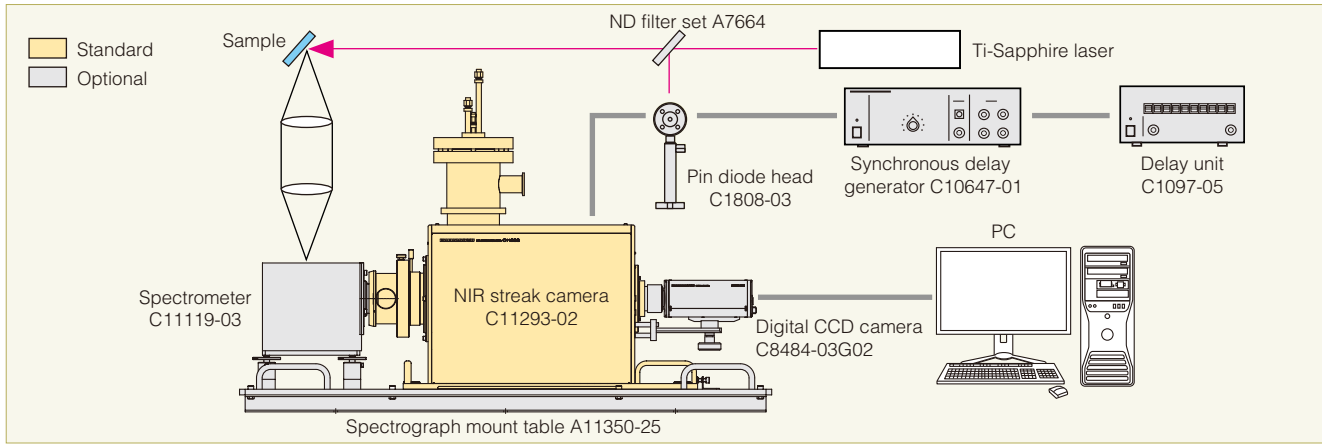
- Measurement wavelength: 1000 nm to 1650 nm
- Temporal resolution: 20 ps
- Multichannel measurement

#### Applications

- Quantum nanostructures
- Photonic crystal research
- Carbon nanotube research
- Material for photovoltaics
- Optical communication

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## System configuration example

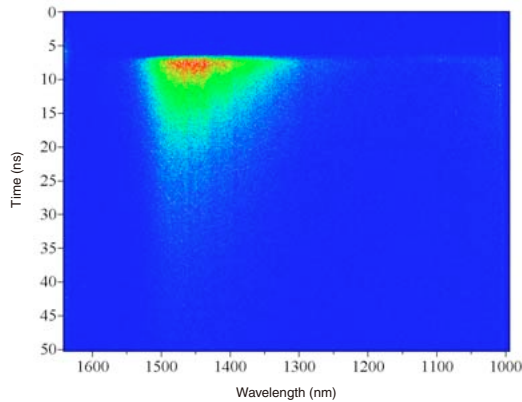


## Measurement examples

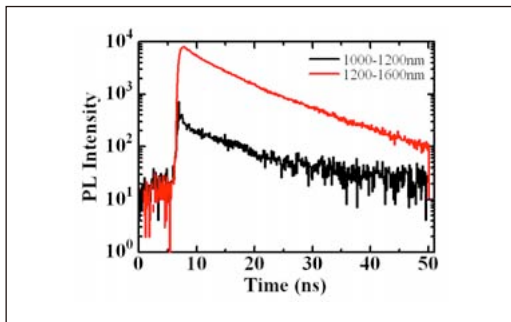
### Emission lifetime of quantum well (MQW488Bflat) captured with streak camera

Excitation light source: Ti-Sapphire Laser  
 Wavelength: 923 nm, Pulse width: 2 ps, Repetition rate: 2 MHz

#### Streak image



#### Fluorescence lifetime measurement

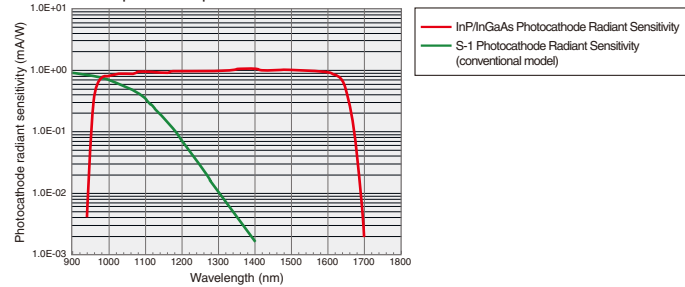


Data courtesy of Kyoto University,  
 Department of Electronic and Engineering, Noda Laboratory

## Specifications

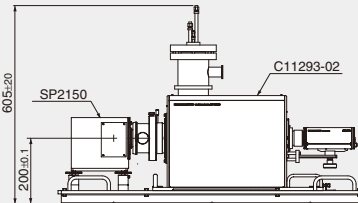
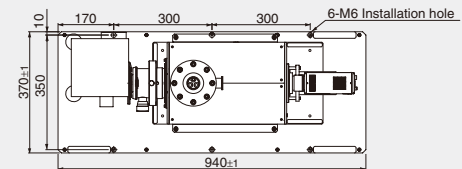
Type number	C11293-02
Measurement wavelength range	1000 nm to 1650 nm
Sweep time	1 ns, 2 ns, 5 ns, 10 ns, 20 ns, 50 ns, 100 ns, 200 ns 500 ns, 1 μs, 2 μs, 5 μs, 10 μs, 20 μs, 50 μs 100 μs, 200 μs, 500 μs, 1 ms, 2 ms, 5 ms, 10 ms
Temporal resolution	20 ps (FWHM)
Sweep repetition frequency (Max.)	20 MHz (1 ns, 2 ns)
Photocathode cooled temperature	-80 °C or less

#### Spectral response characteristics



## Dimensional outlines (Unit: mm)

### NIR streak camera (Including spectrometer, mount table and camera)



\*The C11293-02 unit has a mass of approximately 29 kg.

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