

DSR800

DSR800 Transient Photoelectric Response System

DSR800 uses pulsed optical excitation and configurable acquisition to measure transient photocurrent, photovoltage and response times. Microscope optics, selectable lasers and probe fixtures support detector and photovoltaic dynamics experiments.

Best for: Time-domain studies of photodetectors, carrier dynamics and photovoltaic devices.

**4 ns–400 ps**

Acquisition options

2 or 4

Channels

2.5 GS/s

Sampling option

TPC / TPV

Measurements

Overview

DSR800 excites a device with periodic monochromatic pulses and records the electrical response. Transient current and voltage traces support analysis of rise and fall behaviour, charge extraction and device kinetics.

The acquisition interval is not a guaranteed overall system response time. Select the excitation pulse, detector bandwidth and acquisition configuration together for the timescale of the sample.

Features

- Steady-state I-V, transient current and transient voltage modes
- Open-circuit voltage decay and time-resolved charge extraction
- Microscope objectives and three-dimensional sample alignment

Applications

- Photodetector rise and fall measurements
- Perovskite, organic and thin-film solar-cell dynamics
- Metal-semiconductor heterojunction devices

Specifications and configuration

Configuration options	
Acquisition time-resolution options	4 ns, 2 ns, 1.14 ns, 800 ps or 400 ps
Channels	2 or 4, depending on acquisition module
Published sampling-rate option	2.5 GS/s
Record length	10 M points
Input impedance	1 M Ω or 50 Ω
Nanosecond laser options	Discrete wavelengths within 375–1310 nm
Semiconductor laser options	Discrete wavelengths within 266–2200 nm
Microscope objectives	10 $\times$, 20 $\times$ and 50 $\times$ options
Optional IPCE module	300–1100 nm; extendable to 1700 nm

Configuration and quotation

Share the sample size, wavelength range and required measurements to select the source, optics and acquisition modules.

info@precisometer.com

www.precisometer.com/spectroscopy/photoelectric-testing/dsr800