DCS210PC Photon Counter, 100 Mcps, 10 µs–10 s Lifetime Measurement

Model DCS210PC · waveqvanta.com/products/dcs210pc-photon-counter

Single photon counter with chopper control and lifetime mode for phosphorescence and fluorescence measurements.



The DCS210PC is a single photon counting unit with a 100 Mcps counting channel. Its chopper control mode supports phosphorescence and fluorescence lifetime measurements from 10 µs to 10 s with a 1 µs instrument response width. Three 16-bit analog inputs and one 12-bit analog output make it easy to integrate into a complete spectroscopy system.

Key features

- One photon counting channel, count rate 100 Mcps
- Lifetime measurement from 10 µs to 10 s, instrument response width 1 µs
- Chopping mode with chopper control to improve signal-to-noise ratio
- Water Raman signal-to-noise ratio of up to 4000:1 when combined with an Omni-λ spectrometer, stable light source and high-sensitivity detector
- With an Omni-λ spectrometer, pulsed light source module, SAC-FS sample chamber and detector, measures lifetimes above 10 µs, e.g. of phosphors and rare-earth samples
- Three analog inputs (0–10 V, 16-bit) and one analog output (0–10 V, 12-bit)
- External TTL or software trigger; USB interface

Specifications

Photon Counter Channel	1 channel, count rate 100 Mcps
Analog Input Channels	3 channels, 0–10 V voltage input, 16-bit A/D
Analog Output Channel	1 channel, 0–10 V, 12-bit D/A
Trigger Mode	External trigger (TTL compatible) or software trigger (count starts on command)
Chopping Mode	Yes, chopper control to enhance signal-to-noise ratio
Lifetime Measurement Range	10 µs–10 s
Instrument Response Width	1 µs
Interface	USB
Power Supply	AC 110 V / 220 V
Dimensions	240 × 240 × 120 mm
Weight	3.4 kg

Typical applications

- Phosphorescence lifetime measurement
- Long-lifetime fluorescence of phosphors and rare-earth materials
- Photon counting fluorescence and Raman spectroscopy
- Low-light detection with photomultiplier tubes