

1.2.5.2 Fast Photodetector Model FPS-10

Features

- 2 operation modes - fast and amplified
- Fast mode - 10ns response time, x1 gain
- Amplified mode - 300ns response time, x250 gain
- Spectral range 193nm to 1100nm
- Rechargeable battery inside power supply unit
- Comes with stackable filters to accommodate various laser intensities
- Can be used with fiber input



Description

The FPS-10 fast photodetector is designed to measure the temporal behavior of pulsed lasers. The sophisticated high speed circuitry in the FPS-10 has two modes of operation:

1. x1 gain with 10ns response time for very short pulses with high peak power
2. x250 gain for longer lower peak power pulses.

The FPS-10 comes with additional filters to adjust the sensitivity to the power level of the source. It also comes with a stand and base. Fiber adapters for the head are also available.

Specifications of the FPS-10 Fast Photodetector

| | | |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Detector | Silicon photodiode | |
| Spectral range | 0.19 - 1.1 μ m | |
| Detector aperture | 4mm | |
| Performance specifications | x1 gain | x250 gain |
| Risetime/fall time to 50% | 3ns | 300ns |
| Output sensitivity approx (630nm) | 20mV/mW into 50 ohm | 10V/mW into 1M ohm |
| Noise level | 10nW | 0.2 μ W |
| Input connections | Direct from laser or from fiber optic cable | |
| Input adapters | Accepts standard Ophir SMA and FC adapters and neutral density attenuators. | |
| Attenuation | Accepts standard Ophir x10 and x50 ND attenuators. Attenuators may be stacked. One attenuator of each type is included with FPS-10. | |
| Output connection | Output: BNC | |
| Power supply unit | Power unit is connected to head by telephone cable and runs from rechargeable batteries. Operates 13 hours from batteries before recharge. Wall cube charger is supplied with system. | |
| Supplied accessories: | Rod and stand, 1-x50 attenuator and 1-x10 attenuator. | |
| Dimensions | Sensor dimensions 46mm dia x 90mm deep | |
| Version | | |
| Part number | 78024 | |
| For fiber adapters and accessories available see page 42 | | |

