

## Si free running single Photodetector

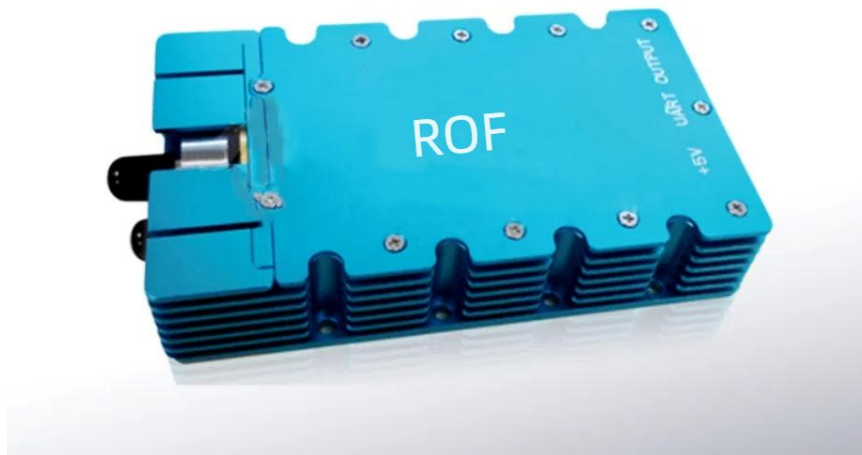
This product is a visible light band single photon detector (Photodetector). The core device uses SiAPD, integrates optical, structural, electrical and software technologies, and has the characteristics of high detection efficiency, strong maintenance and strong environmental adaptability. It is widely used in the fields of single photon Lidar, fluorescence detection, single photon imaging and quantum key distribution. This product uses Si avalanche photodiodes operating in Geiger mode for single photon detection in visible wavelengths. Among them, the typical detection efficiency of 850nm single photon is >50%, dark count <150cps, after pulse  $\leq 5.5\%$ , time jitter < 500ps. In addition, for specific application scenarios, support for the refrigeration target temperature, dead time and other parameters of the user configuration function to strengthen the detection efficiency, saturation count rate and other specific indicators.

### Application

- Single photon Lidar
- Fluorescence detection
- Single photon imaging
- Areas such as quantum key distribution

### Feature

- High detection efficiency
- Visible light detection
- Free running
- Active quenching





## Performance parameters

Parameters	Technical index
Product model	
Response wavelength	400nm~900nm
Detection efficiency @ $\lambda$ =850 nm	$\geq 50\%$
Dark count rate	$\leq 150\text{cps}$
Post-pulse probability	$\leq 5.5\%$
Time jitter	$< 500\text{ps}$
Dead time	$\leq 5\mu\text{s}$
Saturation counting	$\geq 1\text{McpS}$
Number of detector channels	Single channel
Input voltage	5V
Dimension	131mmx76.5mmx26.4mm

\*please contact our seller if you have special requirements