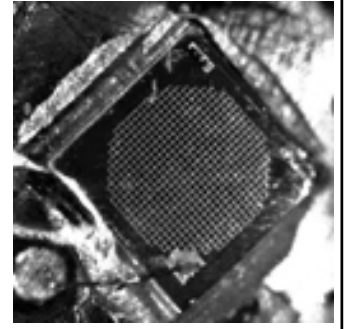


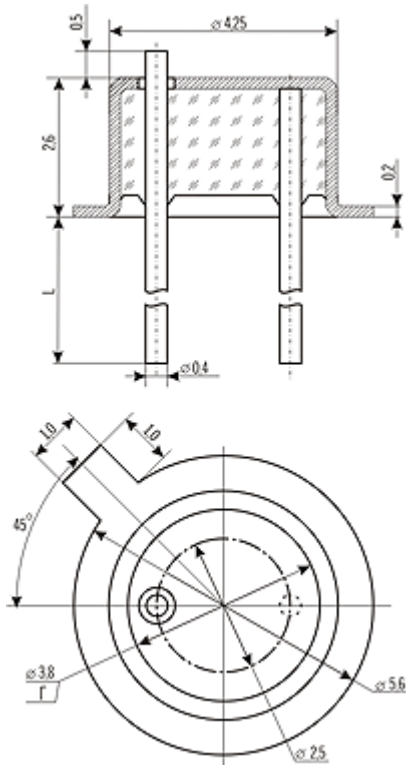
Green-Red sensitive Solid State Photomultiplier with 1mm² active area

SSPM-050701GR-TO18 is a 1mm² active area solid state photomultiplier with a broad and flat spectral response in the Green-Red domain (550-750nm). It has low noise characteristics, high gain and is suitable for a wide range of applications.

At room temperature this device has the best quantum efficiency available today for this technology. When modestly cooled, this device exhibits truly exceptional performance.



mechanical dimensions

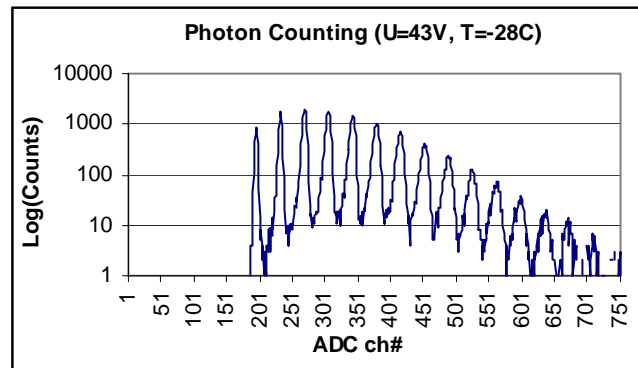


advantages

SSPM-050701GR-TO18 is a superior solution for low-light sensing applications between 450 and 800nm. It has low noise and an excess noise factor close to 1.15

At T=-28C°, SSPM-050701GR-TO18 has a single photon detection efficiency (PDE) in excess of 40% over a wide spectral range while it achieves an outstanding 30% PDE at room temperature.

This performance is illustrated in the following graph where the separation between events containing 1 through 15 incident photons is clearly visible:



notes

- All performance figures are indicative.
- Photonique can provide detailed characterization for individual SSPM's
- Diagrams and instructions for signal amplifier and biasing circuits are provided with SSPMs.
- CAUTION: For optimal integration and coupling to light sources, the light sensitive sensor is not enclosed - DO NOT SCRATCH OR OTHERWISE DAMAGE ITS SURFACE.
- ALL DATA SUBJECT TO CHANGE WITHOUT NOTICE

For further information please contact:

Photonique SA
C.P. 1562
1211 Geneva-1
Switzerland

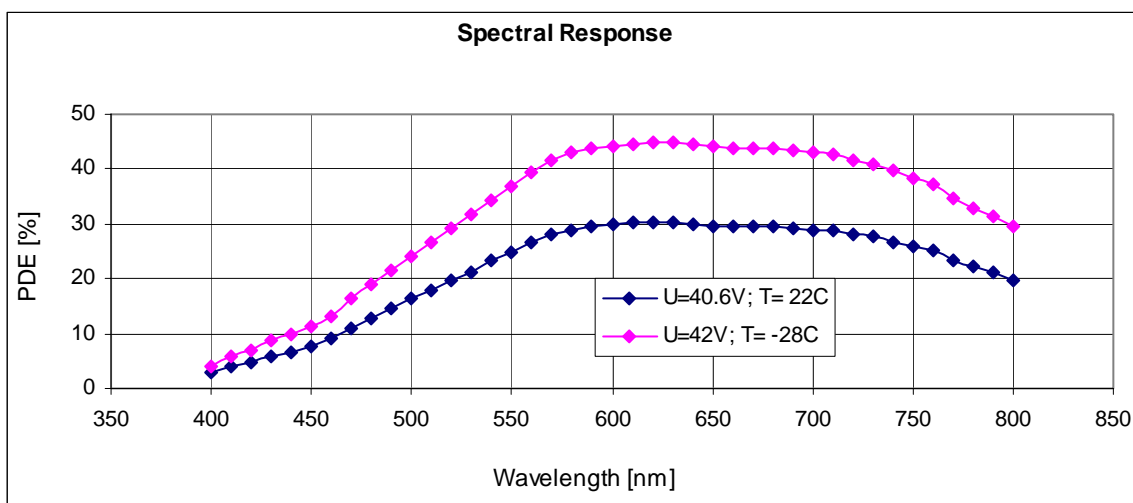
Web: www.photonique.ch

Email: info@photonique.ch

typical performance at T= +22C°

Parameter	Units	Typical Value	Comments
Peak Sensitivity Wavelength	nm	600	= λ_P
Single photon detection efficiency	%	30	at λ_P
Operating Voltage	V	40	= V_R
Gain		0.8×10^6	at V_R
Dark current	μA	2	typical at V_R
Capacitance	pF	35	at V_R and readout rate $f_R = 1MHz$
Excess noise factor		1.15	at V_R, f_R and λ_P
Signal rise time	ns	<2	
Operating Temperature	C°	22	-40 ... +40
Storage Temperature	C°		-40 ... +60

performance graphs



performance graphs

