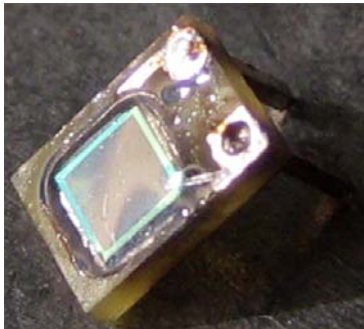


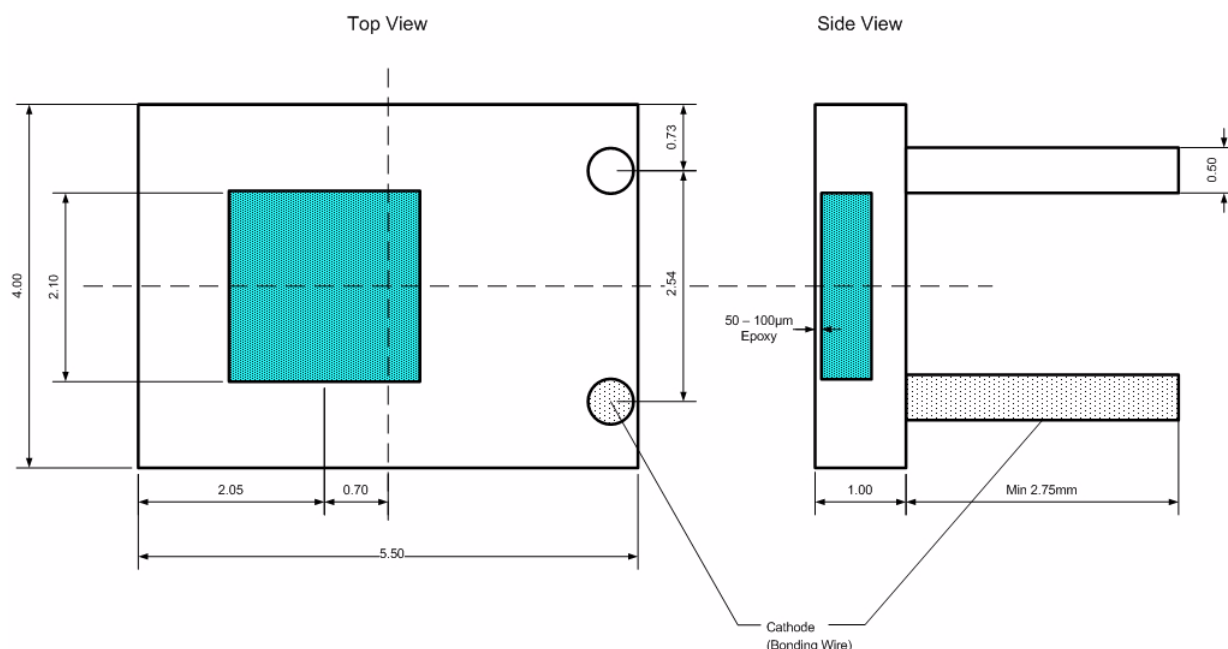
## Blue-Green Sensitive Solid State Photomultiplier with 4.4mm<sup>2</sup> Active Area



SSPM-0606BG4MM-PCB is a 4.4mm<sup>2</sup> active area Solid State Photomultiplier with peak sensitivity at 580nm. Photon detection capability extends well into the blue domain with single photon detection efficiency of around 10% at the LSO peak.

A compact PCB package with rear-side pin connections allows for simple coupling to scintillators and fibre bundles. A fill or geometric factor of over 70%, high pixel density and low bias voltage makes this SSPM a versatile and highly effective photon sensor for a large range of applications.

### dimensions



### 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 when buying PHOTONIQUE SSPM's.
- 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**

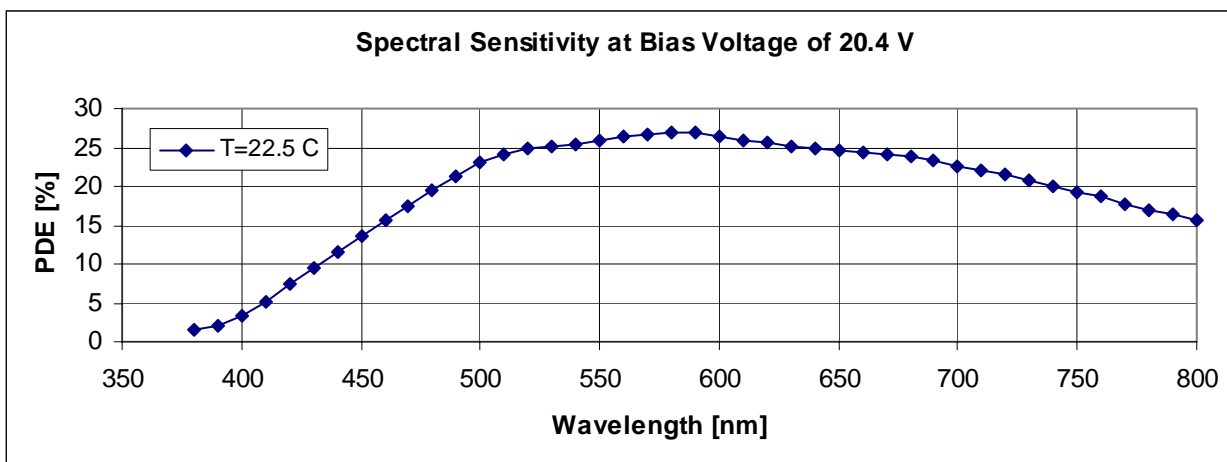
Web: [www.photonique.ch](http://www.photonique.ch)

Email: [info@photonique.ch](mailto:info@photonique.ch)

typical performance at  $T = +22\text{C}^\circ$ 

| Parameter                                | Units            | Typical Values      | Comments                                      |
|--|------------------|---------------------|---|
| Peak sensitivity wavelength              | nm               | 580                 | $= \lambda_P$                                 |
| Single photon detection efficiency       | %                | 26 / 13             | at $\lambda_P$ / at 450nm                     |
| Operating voltage                        | V                | 20.5<br>19.5 - 20.5 | $= V_R$<br>Recommended range                  |
| Gain                                     |                  | $1.5 \times 10^5$   | at $V_R$ using 40ns integration window        |
| Dark current                             | $\mu\text{A}$    | <18                 | typical at $V_R$                              |
| Capacitance                              | pF               | ~170                | at $V_R$ and readout rate $f_R = 1\text{MHz}$ |
| Excess noise factor                      |                  | <1.1                | at $V_R$ , $f_R$ and $\lambda_P$              |
| Signal rise time                         | ns               | <3                  |   |
| Number of micro-cells                    |                  | 1700                |   |
| Operating Temperature                    | $\text{C}^\circ$ | -40 ... +40         |   |
| Storage Temperature                      | $\text{C}^\circ$ | -40 ... +60         |   |
| Max. sensor temperature during soldering | $\text{C}^\circ$ | 110                 |   |

## performance graphs



performance graphs

