



## **IQS-G**

### **Generic Integrated Quantum Sensor (CMOS Silicon Photomultiplier)**

#### **(Precision Measurements )**

IQS-G is a sensor type SiPM (CMOS Silicon Photomultiplier). It is new type of high sensitivity Semiconductor Sensors for Low Photon Flux up to Single Photon. IQS-G series are IQS for precision measurements of low photon flux up to single Photons. IQS-G has low dark rate on the level single photon. They are suitable for precise measurements, that's requires Single Photon Sensitivity and low noise characteristics.


#### **Features**

#### **Applications**

Single Photon and Multi-photon response	Precision low photon flux measurement
Low dark rate and crosstalk	Academic Research
Excellent Time Resolution	Biomedical Measurements
Operates at Room Temperature	Quantum Cryptography
Low Voltage operation (Breakdown Voltage = 13.5 V)	
Compact	

#### **Geometrical Structure**

Type	Number of Cells	Cells Size microns	Step microns	Fill Factor %	Package window
IQS-G (CMOS SiPM)	25	50x50	50.25	42	Glas-Epoxy

#### **Electrical Characteristics (at 25C)**

Type	Breakdown Voltage	Measurement Conditions (V <sub>over</sub> )	Gain	Terminal Capacity (pF)	Temperature Coif. (mV/C)
IQS-G (CMOS SiPM)	13.5 V	3.5 V	5 x10 <sup>5</sup>	10	50

#### **Optical Characteristics**

Type	Spectral Responce Range λ nm	Peak Sensitivity ( ) λ nm	Detection Efficiency (%)	Dark Rate (Single Photon) (kHz)	Cross Talk Probability (%)
IQS-G (CMOS SiPM)	320-900	700	34	10	0.5