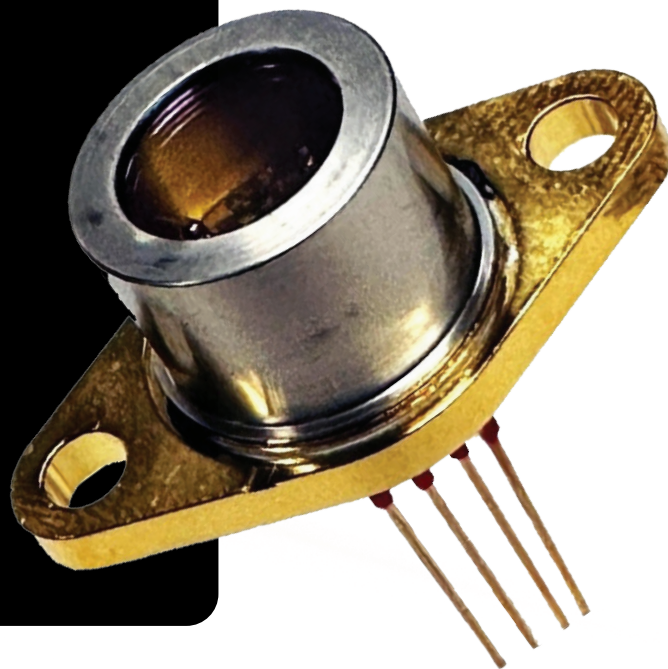


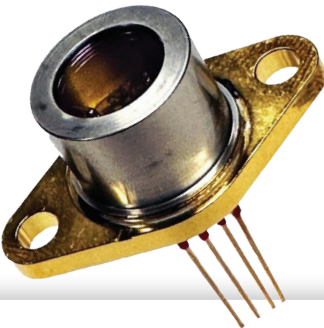
ACQUBIT

SAAZ DESIGNS AND OFFERS SINGLE PHOTON AVALANCHE DETECTORS (SPAD) IN THE SWIR WAVELENGTHS.

THE DEVICES ARE BACKSIDE ILLUMINATED AND PACKAGED IN TE COOLED TO-CAN PACKAGES.



Acqubit is a 3-stage TE-cooled InGaAs SPAD detector packaged in a T08 package with integrated heatsink. The InGaAs detector is a backside illuminated device.



FEATURES

- Single Photon Sensitivity
- Back-illuminated mesa design device
- Packaged in a T0-08 6 pin header on a T0-66 flange
- 3-stage TE-cooled package
- 1550 nm AR coated window cap

APPLICATIONS

- Quantum Cryptography
- Methane Detection
- Range Detection
- Laser Communication

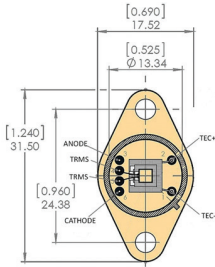
VERSATILITY

- Test Board option
- Compact Module Option

SPECIFICATIONS*

Parameter	Conditions	Active Diameter			Units
		20 μ m			
		Min	Typ.	Max	
Linear Mode Parameters (295K, all voltages and currents are reverse biased)					
Breakdown voltage, Vb	295K, Id = 1 μ A	60	75	85	V
Temperature dependence of Vb	Between 295K and 240K, linear approximation		0.13		V/K
Capacitance, C	Vb-3, 1 MHz		40	100	fF
Total Dark Current, Id	295K, Vb-3			20	nA
Quantum Efficiency, QE	1064nm, M=1 (Linear Mode)	85			%
Geiger Mode Parameters (All voltages and currents are reverse biased)					
Dark Count Rate, DCR	at 240K at 4V OB		15	50	kHz
Photon Detection Efficiency, PDE	at 240K at 4V OB	25			%

PIN	Assignment
1	TEC (-)
2	TEC (+)
3	APD (Anode)
4	Thermistor (2.2k Ω)
5	Thermistor (2.2k Ω)
6	APD (Cathode)



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*SAAZ reserves the right to change the specification without prior notice.
For updated specifications contact us.

saaz
making it v's'ble