

Single Photon Avalanche Detector (SPAD) (Instrument)

Specification-Electrical

Sl No.	Parameter	Value
1	Spectral Range	900 nm to 1700 nm
2	Optical Coupling	FC/PC 1 meter fibre cable
3	Detection mode (user selectable)	Free running (FR) and gated mode (GM)
4	Dark Count Rate	<1000 cps @30% quantum efficiency @1550nm
5	Dead Time	Min 100ns, selectable upto 1ms (max)
6	Quantum efficiency(QE) (also called efficiency)	30% @1550nm
7	Timing jitter@ max QE	150ps (max)
8	After pulsing probability	<0.1%
9	Detection output	LVTTL
10	Output pulse width	<70 ns
11	Trigger input	TTL with SMA type
12	Trigger input min gate width	1 ns- 3 ns
13	Computer connection	Mini USB 2.0 type B
14	Warranty	1 year
15	External trigger input	100 MHz (gated model)
16	Software display or control (min requirement)	a. Count rate b. Control over QE c. Control over dead time d. Control over temperature

GENERAL SPECIFICATIONS-I

Mounting plate	To be provided
Power supply	230 V AC
Operating temperature	+10°C to +30°C

GENERAL SPECIFICATIONS-II

Accessories	All accessories, Software driver should be included. AC/ DC adapter for 230 V to be provided.
Optical Coupling cable	FC/PC 1 meter fiber cable. One with instrument & one spare cable to be provided per instrument
OEM (original equipment manufacturer) requirement	Quote should be from OEM or their valid authorized Indian representative only. Valid Authorization certificate shall be enclosed.
Comprehensive extended warranty	for 3 years (second year onwards)
Installation & Demonstration	To be done on-site

