

Technical specification for Single photon avalanche diode (SPAD)

Minimum specifications

	Specification	Value
1	Coupling	Free-space / Fiber
2	Peak photon detection efficiency @ 600nm	atleast 60 %
3	Dynamic range	> 30 Mcps
4	Wavelength range	400 – 1000 nm (min)
5	Active area	> 150 μm
6	Dark count	\leq 100 cps
7	Average dark count variation at constant temperature (6 hrs @ 25 °C)	\pm 10% (or lesser)
8	Average dark count variation at temperature range from 5-70 °C	\pm 20% (or lesser)
9	Output pulse width	7 – 15 ns
10	Output pulse amplitude	Should be compatible with standard TTL
11	Dead time	< 25 ns
12	Single photon counting resolution	350 ps or better