

Technical Specification FOR Single Photon Counting Module**Item 1:**Minimum specification for **Single Photon Counting Module**

Sr. no.	Specification	Value
1	Coupling	Fiber coupled
2	Peak photon detection efficiency @ 600nm	> 60 %
3	Dynamic range	> 30 Mcps
4	Supply voltage	5 ± 1 V
5	Supply Current	0.7 ± 0.2 A
6	Case operating temperature	0 – 80 °C
7	Wavelength range	400 – 1100 nm
8	Active area	> 150 μm
9	Dark count	≤ 100 cps
10	Average dark count variation at constant temperature (6 hrs @ 25 °C)	±10%
11	Average dark count variation at temperature range from 5-70 °C	±20%
12	Output pulse width	7 – 15 ns
13	Output pulse amplitude	TTL High - 1.7 – 2.5 V TTL Low - 0 – 0.8 V
14	Dead time	< 25 ns
15	Single photon counting resolution (@ 825 nm)	350 ± 30 ps
16	Output count rate before saturation	35 ± 10 Mc/s
17	Linearity correction factor @ 25Mc/s	≤ 3.32
18	Threshold setting required on counter for digital output pulse (terminate at 50 Ω)	≤ 1 V

19	Gating turn on/off Disable = TTL low (<0.8V) Enable = TTL high (> 2 V)	≤ 45 ns ≤ 65 ns
20	Gating threshold voltage (@ V supply = 5 V) Low level (sink current >90mA) High level (sink current >30mA)	≤ 0.4 V ≤ 5.25 V

Please provide a clear warranty statement for 2 years

Item 2:

Minimum specification for **Single Photon Counting Module**

Sr. no.	Specification	Value
1	Coupling	Free space
2	Peak photon detection efficiency @ 600nm	>80 %
3	Dynamic range	> 30 Mcps
4	Supply voltage	5 ± 1 V
5	Supply Current	0.7 ± 0.2 A
6	Case operating temperature	0 – 80 °C
7	Wavelength range	400 – 1100 nm
8	Active area	> 150 μ m
9	Dark count	≤ 500 cps
10	Average dark count variation at constant temperature (6 hrs @ 25 °C)	$\pm 10\%$
11	Average dark count variation at temperature range from 5-70 °C	$\pm 20\%$
12	Output pulse width	7 – 15 ns
13	Output pulse amplitude	TTL High - 1.7 – 2.5 V TTL Low - 0 – 0.8 V
14	Dead time	< 25 ns

15	Single photon counting resolution (@ 825 nm)	350 ± 30 ps
16	Output count rate before saturation	35 ± 10 Mc/s
17	Linearity correction factor @ 25Mc/s	≤ 3.32
18	Threshold setting required on counter for digital output pulse (terminate at 50 Ω)	≤ 1 V
19	Gating turn on/off Disable = TTL low (<0.8V) Enable = TTL high (> 2 V)	≤ 45 ns ≤ 65 ns
20	Gating threshold voltage (@ V supply = 5 V) Low level (sink current >90mA) High level (sink current >30mA)	≤ 0.4 V ≤ 5.25 V

Please provide a clear warranty statement for 2 years