

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY MATERIALS MANAGEMENT DIVISION Powai, Mumbai - 400076

<u>Technical Specifications of Single Molecule Counting</u> <u>RFx No. 6100001092 (Reference No. 1000024642)</u>

Lasers	Type: Diode
	Wavelength: 642nm
	Power: Non-configurable, nominal use between 5 – 40mW,
	direct diode output max 150mW.
Detectors	Specification of APD information:
	The Single Photon Counting Module Avalanche Photo Diode
	uses a unique silicon avalanche photodiode with a circular
	active area and can detect single photons over the
	wavelength range of 400nm – 1060nm. Signal is filtered
	through a 690/50nm Bandpass filter.
Signal Processing	Parameter dynamic range: 4.5+ decades of dynamic range
	Time processing: < 0.6 Seconds per well to process based
	on v1.0.319
Performance	Slope: >1.2 Response/fM1
	Background: <3 Response1
	Limit of Detection (LoD): < 1fM
	Precision: <10% CV1
	1Measurements based on 30fM calibrator, n = 20
Reading Time	Reading time varies. Individual well reads are vary based on
	signal strength
	1-well Reading Time: 4sec (High concentration) to 30sec
	(blanks).
	96-well Reading Time: 45min (typical)
	384-well Reading Time: 3 hours (typical)
Warranty	One year from date of installation