	INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
	MATERIALS MANAGEMENT DIVISION
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PR No. 1000032679   Rfx No. 6100001413

Technical Specification for Microvolume Spectrophotometer with Cuvette Applications (NANOPHOTOMETER):

1	Wavelength Range: 200 to 900 nm or better
2	Wavelength Accuracy: ±0.75 nm or better
3	System should have provision for both pedestal based Microvolume measurements and cuvette slot for UV Vis applications
4	**For Microvolume measurements, Sample volume is 0.3 µl to 2 µl or better**
5	For Cuvette measurements, the sample volume up to 3.5 ml
6	System should support following applications: Nucleic Acid: A260, A260/A280, A260/A230 and labelled Nucleic Acids; Protein: A280, Protein assays such as Bradford, BCA, Lowry, labelled Proteins, OD600, Kinetics and Custom Methods such as Wavelength, Wave scan, concentration, Absorbance Ratio, Standard curve
7	Minimum Detection limit dsDNA: **1 ng/ µl or better**; BSA: 0.03 mg/ml or better
8	Maximum concentration: dsDNA: **16,500 ng/ µl or better**; BSA: 478 mg/ml or better
9	Absorbance Range: Microvolume measurements: 0.02-330 Abs or better Cuvette measurements: 0 to 2.6 Abs

10	Absorbance accuracy <**1.75% @ 0.7 A @ 280 nm of the reading**
11	Measurement time for full scan range: 2.5 to 4 Seconds
12	Light Source: Xenon flash lamp with lifetime 10^9 flashes, up to 10 years
13	**Detector type: CMOS**
14	Control Options: On-board with built-in Glove Compatible Touch screen
15	Software Compatibility for Computer/Laptop: Windows 7/8/10 (32 & 64 bit), OS X, iOS & Android OS, **Mac OS X**
16	**System should not require any routine calibration procedure throughout entire life time**
17	**System must measure samples like a capillary film through Sample Compression Technology or equivalent technology and relevant documentary evidence such as US or European patent document must be attached along with technical literature**
18	**Operating software: LINUX based OS with capability to detect contaminants & Bubbles in the sample during measurement**
19	System must have various connectivity options such as USB A port for data transfer, USB B port for connectivity with PC/ Laptop (Windows and Mac OS), LAN port for connectivity with Printer / PC, WiFi for connectivity with Laptop / Air Printers, Hotspot for connectivity with smart phones or Tablets (Android OS & iOS)
20	The system should have 32 GB Internal storage for data.
21	**System should have an inbuilt low vibration Vortexer to homogenize 2ml sample vials**
22	System should have optional Inbuilt Rechargeable battery pack with backup time of minimum 8 hours
23	System should be supplied with necessary accessories for its setup and operation such as power cable, USB cable and pen drive with user manuals
24	Voltage specification: 230V, 50 Hz (Indian standard)

25	The system should be CE Certified. CE Certificate - On commercial products, the letters CE mean that the manufacturer or importer affirms the goods' conformity with European health, safety, and environmental protection standards. It is not a quality indicator or a certification mark.
26	Warranty: 2 years from the date of installation
27	The system should have minimum 10 installations all over India and user list should be provided
28	The company should have a service centre in Mumbai for any service related issue
29	The hard copy of the complete product brochure should be provided
30	Vendor has to perform the demo once the technical and financial evaluation completes and the system should match the specs as mentioned in the technical compliances.