

**Revised Technical Specifications of Optical 3D surface profilometer after PBC**

<b>S. No</b>	<b>Indented Specifications</b>	
1.	<b>Mode</b>	Non-contact type
2.	<b>Method</b>	White light Interferometry
3.	<b>Measurement parameters</b>	2D and 3D surface profile: Film thickness , step height, surface roughness, surface texture
4.	<b>Sample type and size</b>	Films/coatings: Opaque/ transparent /reflective material Sample size: at least 50 mm x 50 mm x 10 mm or larger
5.	<b>Sample reflectivity</b>	0.05%-100% <b>or better</b>
6.	<b>Stages</b>	<b>XY sample stage:</b> 100 mm x100 mm or larger, Automated /motorized <b>Z stage:</b> 100 mm or better, Automated /motorized <b>±4° tip/tilt</b> (Manual or Automated) or better
7.	<b>Z scan</b>	Maximum range should be 10mm or better
8.	<b>Vertical resolution</b>	0.01nm or better over the entire Z scan range
9.	<b>Performance:</b>	RMS repeatability :0.01nm or better; step height repeatability:0.3% or better and accuracy:3% or better ( <b>should be demonstrable on standard samples</b> ) Autofocussing capability
10.	<b>Objectives magnification and type</b>	5x, 20x , Interferometric objective
11.	<b>Objective Mounts</b>	Single objective adapter ,automated turret mount with 4 positions or more
12.	<b>Active Vibration Isolation</b>	If required: Active Vibration isolation table or unit (The complete and indented performance capability of the instrument must be demonstrated in noisy/ambient environment if not provided)
13.	<b>Illumination source</b>	White light LED source
14.	<b>Software</b>	Compatible software for Data Acquisition and Analysis with following capabilities: Autofocus and Auto-alignment Automated and user-friendly operations Step height measurement Surface roughness measurement Surface Texture measurement Optical Stitching capability Offline processing capability Any third party software if required, must be quoted with original license directly from the original vendor for the warranty period and must be upgradable
15.	<b>Computer</b>	Branded PC with original Windows 7 /10 operating system, i5 processor, 8 GB RAM, 500 GB hard drive, Flat panel LCD :19"
16.	<b>Power back up</b>	Compatible UPS capable to provide power back up of at least 15 minutes
17.	<b>Documentation (Manual, Drawings, if any and</b>	Complete set of documentation in hard copy as well as softcopy must be supplied with the system.

	<b>Literature)</b>	
18.	<b>Installation and Commissioning</b>	The instrument to be installed, tested and commissioned by the manufacturer's qualified engineer/representative at CSIO, Chandigarh and performance must be tested by the engineer on supplied standard.
19.	<b>Warranty</b>	<ol style="list-style-type: none"> <li>1. 12 months or more of warranty after successful installation/commissioning.</li> <li>2. Any warranty failure must be supplied to CSIO premises on DDP basis, without any cost implication to CSIO, Chandigarh. Any kind of payment will not be made for failure replacement.</li> </ol>
20.	<b>Spares availability assurance</b>	Vendor must confirm the availability for at least 10 years of the spare support of the offered system.
<b>OPTIONAL ACCESSORIES (must be quoted separately)</b>		
01.	<b>Annual Maintenance Contract</b>	Annual maintenance cost for upto three years after the expiration of warranty period must be provided in year wise manner
02.	<b>Optical Zoom Lens</b>	2X
03.	<b>Standards</b>	NIST Certified Standards for: <ol style="list-style-type: none"> <li>1. Step Height (1µm)</li> <li>2. Surface Roughness</li> </ol> Should be compatible with the system

**NOTE:**

1. The vendor must ensure that the main system is complete and ready for operation in all aspects.
2. All licenses of the softwares must be original and upgradable and must be in name of CSIR-CSIO, Chandigarh.
3. A list of similar recently commissioned facilities in India preferably in CSIR or other Government research facilities must be provided along with the copies of their purchase orders. A detail user list must also be attached of strictly similar profilometer.
4. Kindly quote every set up and accessories as per the CSIO tender specification format with all the supportive brochures and literatures. The sections matching the required specification must be clearly highlighted. In case of improper format or insufficient attachment, no clarification will be asked and could be subject to direct rejection of the bid.
5. All supportive brochures with point by point compliance (hard copy) must be attached with the technical bid. Non availability of any supportive technical literature, brochure etc. as will be mentioned in compliance is subject to the rejection of the bid and no communication will be made in this regard from CSIO.
6. List of users should be provided