

Feb 28th, 2013

**Sub:** Purchase of Optical Profiler

We wish to purchase a compact table top 3D Non-Contact Optical Profiler with Scanning White Light Interferometer technique.

Kindly send the quotation in sealed envelope to the undersigned by March 16<sup>th</sup>, 2013. The desired specification of the profilometer has been detailed below.

Thanks and regards,

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We are looking for a non-contact optical profiler for obtaining 3D image of texture on rough surfaces and for obtaining quantitative measurement of geometric dimension of the 3D form including roughness of these surfaces. The profiler should provide fast and accurate metrology in a compact package that can be located on a work bench without the need for vibration isolation or specialized enclosures. The interactive control software should provide easy and detailed visualization of the surface.

Desired specification and capability of the Optical Profiler:

**Specifications:**

S.No.		
1.	Measurement	Non-contact, three-dimensional
2.	Technique	Scanning white light interferometry
3.	Scanner	Long range z-stage
4.	Objectives	4X, 10X & 50X
5.	Field of View	Objective dependent
6.	Illuminator	Integrated long-life white-light LED with computer-controlled light level
7.	Objective	Direct objective thread (standard)
8.	Mounting	Manual 4-objective turret
9.	Focus Assist	Software controlled through-the-lens focus assist
10.	Measurement Array	1024 x 1024
11.	Part Viewing	Software Integrated interactive live display
12.	Z-Stage	100 mm travel; head may be mounted at either of 2 heights for optimal work volume
13.	Stage Control	USB Control Pack with ergonomic thumb button control of stage speed and focus mode toggle
14.	Safety	Emergency stop integrated in system base
15.	Part Stage	Manual Tip/Tilt with $\pm 4^\circ$ tip/tilt Manual XY with 50 x 100 mm x/y travel Integrated T-Slot plate for fixture attachment

16.	Computer	The profilometer should come with PC and monitor, the specification of which is to be mentioned in the quotation.
17.	System Software	The PC should be loaded with the system software and a back-up of it is to be provided in CD complete with instructions for installation.

18.	<b>PERFORMANCE</b>	
	Vertical Scan Range	20 mm
	Vertical Resolution	3.5nm
	Surface Topography	3 nm
	Repeatability	per ISO/DIS 25178
	Optical Resolution	0.52 $\mu$ m to 9.50 $\mu$ m; objective dependent
	Data Scan Rate	$\leq$ 23 $\mu$ m/sec
	Maximum Data Points	1,048,576
	Step Height	Accuracy $\leq$ 1%; Repeatability $\leq$ 0.3% @ 1 $\sigma$

19.	<b>TEST PART CHARACTERISTICS</b>	
	Material	Various surfaces: opaque, transparent, coated, uncoated, specular, nonspecular
	Reflectivity	1-100% (typ)

20.	<b>UTILITY REQUIREMENTS</b>	Input Voltage 240 VAC
21.	Expected date of delivery	

21.	<b>Documentation</b>	
	The supplier to provide 2 sets of installation manual, user manual, operation and troubleshooting manuals along with their soft copies.	Supplier to provide a pre-installation guide at the time of quotation.
22.	Installation, satisfactory demonstration of performance and imparting necessary training to our users/students	It will be the responsibility of the supplier to install and demonstrate its quoted performance and impart necessary training to institute. Supplier to submit their detailed standard acceptance plan at the time of quotation.
23.	Warranty	2 years standard warranty at site for the complete supply. Vendor should clearly mention type of services i.e preventive/breakdown Maintenance/calibration covered under warranty with its interval and cost criteria. 2 years extended warranty is to be quoted as option.

	Compliance	<p>Mandatory to comply all the specifications.</p> <p>This must be duly supported by technical leaflets, brochures and other related literature wherever applicable in support of the offered system.</p> <p>Supplier must provide also a list of customers who have purchased and installed similar system in their laboratory, their email addresses and contact numbers.</p> <p><b>The supplier to prepare a comparison table giving compliance/non-compliance against each point in the RFP, giving corresponding values / details. This is important for proper evaluation of their offers.</b></p>
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