

NATIONAL INSTITUTE OF TECHNOLOGY,  
TIRUCHIRAPPALLI - 620 015

Tender Notification No.7/2007

Department of Mechanical Engineering

**Item No. 03. AUTO COLLIMATOR**

**Optical Head**

Source	: Visible laser diode modulated at 10KHz; circular polarized
Wavelength	: 670 nm
Peak Power	: 900 $\mu$ W (Class II)
Beam Diameter	: 31 mm
Beam Divergence	: 100 $\mu$ rad
Beam Direction	: 500 $\mu$ rad
Equivalent Focal Length	: 280 mm
MeasurementField	: +/- 2000 $\mu$ rad
Ocular Field	: +/-15mrad(+/-1.1 $^{\circ}$ )
Resolution	: 0.1 $\mu$ rad
Measurement Distortion	: +/- 1 (+/- 0.02 x measurement) $\mu$ rad (i.e. 2%)
Reflector	: Min. 2% reflectivity
Noise	: 0.02 Jrad / Hz (at 100% reflectivity)
Weight	: 1.1 kg
Operating Temp. Range	: + 15 to + 25 $^{\circ}$ C
Storage Temp. Range	: 10 to + 50 $^{\circ}$ C

**Electronic Controller**

Display	: 2 x 20 characters, adjustable brightness
Front panel	: Configuration and measurements in local mode
Processor	: 68000 (32 bits – 16MHz)
Interface	: RS - 232 - C and IEEE - 488
Protocol	: ASCII
Sampling Frequency	: 2000 Hz
Digital Integration Time	: adjustable from 0.5 msec to 1 sec
Internal Memory	: 2048 data samples (14336 optionally)
Synchronized Input / Output:	available in rearpanel
Analog Outputs (optional):	+/- 10 V; adjustable filter and gain
Power supply	: 90/264 V, 50/60 Hz, 30 VA
Operating Temp. Range:	+ 15 to + 25 $^{\circ}$ C
Storage Temp. Range:	- 10 to + 50 $^{\circ}$ C