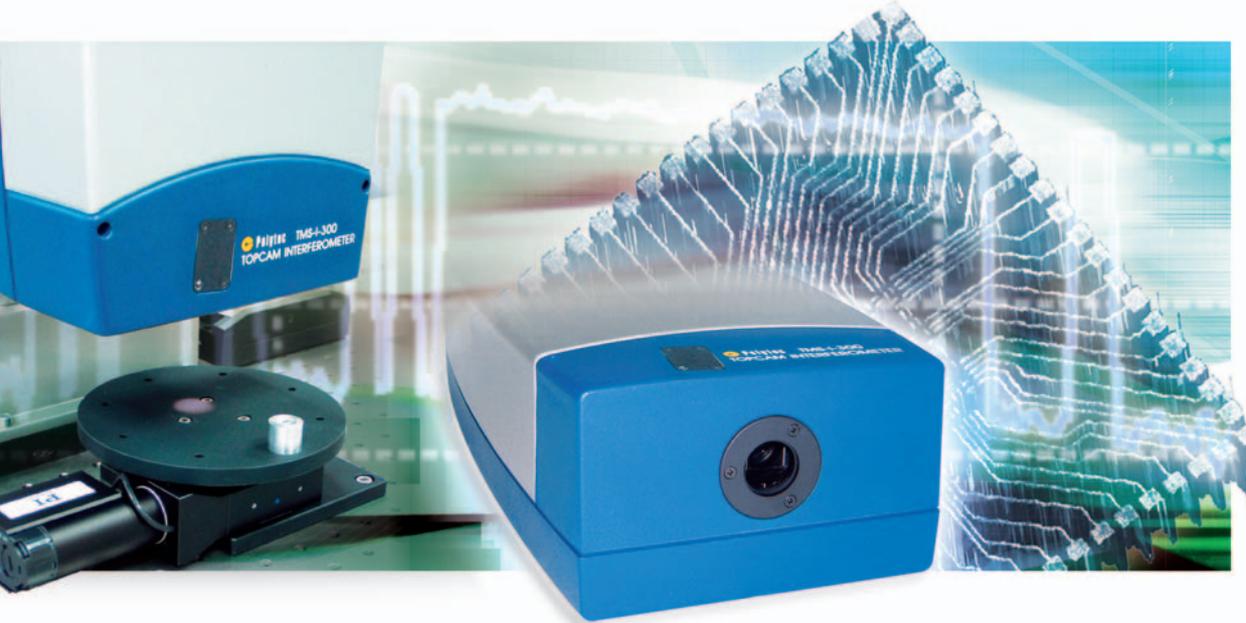


TMS-300/320 TopCam Interferometer



TMS TOPOGRAPHY MEASUREMENT SYSTEMS

- TMS-300/320 TopCam Interferometer
- TMS-600/650 TopMap Interferometer

FLATNESS AND TOPOGRAPHY MEASUREMENTS IN PRODUCTION ENVIRONMENTS

The TopCam is a compact, white light interferometer designed to simplify precision topography and flatness measurements for on-line part inspection in production environments.

Robust, Compact and Precise

Designed as a compact, industrial inspection system, the TMS-300/320 TopCam interferometer easily installs on a manufacturing line and rapidly verifies production part specifications for flatness and topography. Outstanding technical performance is accomplished by combining telecentric imaging with a Michelson interferometer, a precision scanning system and a digital camera.

Easy to integrate, the TopCam can be mounted in any direction and can be controlled via its perator interface software using COM/ActiveX or LabView™ drivers.

Telecentric lenses allow proper imaging along high, steep edges and within deep, drilled holes. Measurements of imaged surfaces with substantial relief are easily characterized by scanning the large Z dynamic range. The TMS camera simultaneously acquires 325,000 point interferograms over the entire field-of-view.

TMS Software

The TMS software package includes all the necessary commands for instrument operation, data acquisition, analysis and presentation. Outstanding 2-D and 3-D data representation can be enhanced with profile cuts and filter algorithms.

Features

- Non-contact topography measuring interferometer
- Designed for production environments
- Large Z dynamic range of 0.5 mm or 50 mm
- Fast measurement over large field-of-views (up to 19 mm diameter)
- High-precision Z resolution – up to 10 nm
- Accurate inspection of high-aspect-ratio surface topography (e.g. laser-drilled holes)

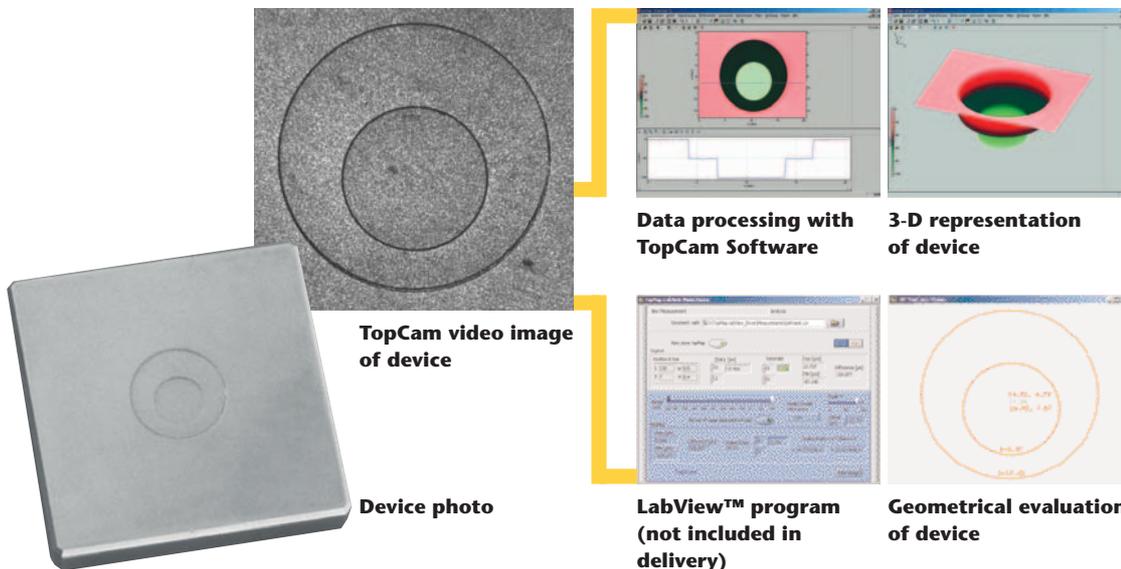
Specifications

TMS-300/320 TopCam – Hardware		
Interferometer type	Michelson	
Imaging system	telecentric	
Field-of-View (depending on configuration)	4.2 mm x 5.6 mm, 6.4 mm x 8.6 mm, 9.6 mm x 12.8 mm, 13.6 mm x 18.3 mm, Ø 19 mm	
Version	TMS-300	TMS-320
Dynamic range	500 µm	50 mm
Z resolution	< 40 nm	1 µm (10 nm)*
Lateral resolution	9 µm ... 39 µm (depending on the field-of-view)	
Camera resolution	658 (H) x 494 (V) Pixel	
Dimensions [L x W x H]	380 mm x 200 mm x 120 mm (15 in x 7.9 in x 4.7 in)	
Power	Universal Power Supply 100 V ... 240 V	
Weight	~ 9.5 kg (21 lbs)	
Operating temperature	+5 °C ... +35 °C (41 °F ... 95 °F)	
Storage temperature	-10 °C ... +65 °C (14 °F ... 149 °F)	
Relative humidity	max. 80%, non-condensing	

* with optional high-precision Z resolution

TMS Software
Live video for placement and adjustment of the measurement sample
Operator interface for TMS-300/320
Remote control via Polytec-provided COM/ActiveX or LabView™ drivers

For more information please contact your local Polytec sales engineer or visit our website www.polytec.com and look under metrology products.



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