

# TopMap TMS-600/650



## WHITE LIGHT INTERFEROMETER TMS-SERIES

- TopCam TMS-300/320
- TopMap TMS-500
- TopMap TMS-600/650

## LARGE AREA FLATNESS AND TOPOGRAPHY MEASUREMENT WITH NANOMETER RESOLUTION

*Polytec offers with his high precision white light interferometer of the TMS-600/650 series a measurement systems for topography and flatness measurements with high z-dynamic and a vertical resolution of a few nanometer.*

### High-precision and fast

The TopMap TMS-600/650 white light interferometer is the perfect measurement system if there is a need for measurements of high precision technical surfaces. 455.000 points at once provides measurement times for areas up to 30 x 40 mm of a few seconds.

In consequence of the high z dynamic of 50 mm it is even possible to measure not flat surfaces. The required measurement time depends on the scanning way in z direction.

Caused by a technique which is called "Overlay" it is possible to measure even surfaces with high contrasts.

The telecentric lenses afford a measurement on steep edges and drilling holes.

### TMS Software

The TMS Software includes all necessary handling and analysis function needs for a automatically operation.

2D and 3D mapping is also possible like the ability to add profile cuts and different filter algorithms.

### Features

- High precision with z-resolution up to 1 nm
- High z-dynamic of 50 mm
- Flexible by Overlay technique
- Fast by field of views of 30 mm x 40 mm
- Contact less by optical interferometric set-up
- Measurements in drilling holes by telecentric lenses

## Specifications

TopMap TMS-600/650 Hardware	
Interferometer type	Michelson (telecentric)
Field of views	7 x 10 mm <sup>2</sup> , 15 x 20 mm <sup>2</sup> , 30 x 40 mm <sup>2</sup> (10 x 13 mm <sup>2</sup> , 20 x 27 mm <sup>2</sup> , 29 x 38 mm <sup>2</sup> )*
Z-dynamic	50 mm
Z-resolution (TopMap TMS-600)	10 nm
Z-resolution (TopMap TMS-650)	1 nm
Lateral resolution	12 μm – 53 μm (9 μm – 29 μm)*
Camera-resolution	780 (H) x 582 (V) Pixel
High resolution camera**	1300 (H) x 1030 (V) Pixel
Dimensions	66 x 53 x 20 cm <sup>3</sup>
Power	100 – 240 V
Weight	ca. 45 kg

\* with high resolution camera, \*\* with high z-accuracy

TMS Software
Functional operator interface through PC control
Live video for placement and adjustment of the measurement sample
Versatile filter and interpolation algorithms
Easy interfacing via COM/ActiveX or LabView/DriverÜ

Polytec TMS white light interferometer overview							
	PC incl. software	z-dynamic 500 μm	z-dynamic 50 mm	high z- resolution	phase shift	high resolution camera	basic engine
TMS-300	•	•		•			◦
TMS-320	•		•	◦			◦
TMS-500	•		•			◦	◦
TMS-600	•		•	•		◦	•
TMS-650	•		•	•	•	◦	•

• standard ◦ optional available

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