

XBow

LayTec’s XBow is a production in-situ metrology tool designed to measure wafer curvature. Dependent on the variant it can measure the curvature in X and Y direction as well as aspheric curvature.

Features

Curvature

- Wafer selective in-situ curvature measurement
- Asphericity measurements to obtain information on wafer curvature along two perpendicular directions: for systems with Advanced Resolution (AR)
- Reflectance compensation detection (RCD) for enhanced dynamic range

Communication / Integration

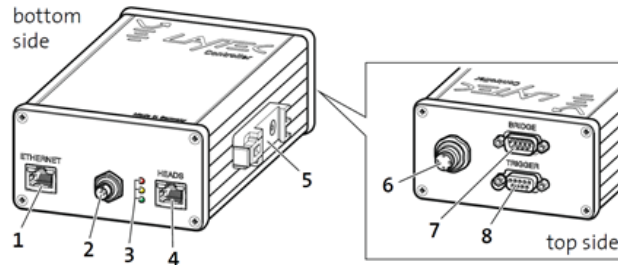
- Optimized for 24 h / 7 day operation in production environment
- Measurements on single and multiple wafers (rotating or non-rotating)
- Wobble compensating optics
- Data exchange with growth system control computer via TCP/IP protocol-based software interface. Pre-configurations for different growth systems.
- Remote controllable

Measurable growth parameters

Parameter	XBow
Curvature range*/ typical accuracy	-7000 (convex) to +750 (concave) ± 0.5 (asphericity: ± 0.3) (optional)

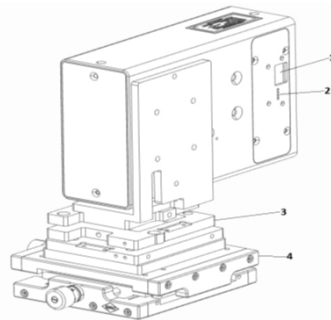
System components

Base Unit



- 1. Ethernet socket
- 2. Triad 5-pin socket
- 3. Status LEDs
- 4. Heads RJ45 socket
- 5. Top-hat rail adapter
- 6. 4-pin M12 power supply socket
- 7. Bridge socket
- 8. Trigger socket

Measurement head



- 1. RJ45 Socket
- 2. Status LEDs
- 3. Tilting unit
- 4. Shifting unit

Description of the parts

XBow optical head for curvature measurements – Depending on your application, the curvature measurement is performed by a red or a blue light sources

Light source	Curvature Semiconductor laser	
Standard wavelenghts and bandwidth (nm)	405 (blue)	670 (red)
Life-time according to manufacturer (h)	>10 000	>20 000

Specifications are subject to further technical development and may differ from those given in the data sheet. In certain cases, performance may be limited by reactor type and/or growth conditions. Please consult our technical sales team to see how LayTec metrology can best serve your specific application.

For further information please contact:

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Developed,
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