

## ContourGT-X8 PSS Non-Contact, 3D Optical Profiler

High-Throughput, Precision Surface Metrology for HB-LED PSS Production Environments

- Simultaneous Measurement of Height, Width and Pitch of Multiple PSS Features
- Fast and Easy Multi-Region Automation, Pass-Fail, Reporting and Databasing
- Optimized, Easy Integration with Automated Substrate Handlers
- Unmatched Vibration Immunity and Tool-to-Tool Gauge Repeatability



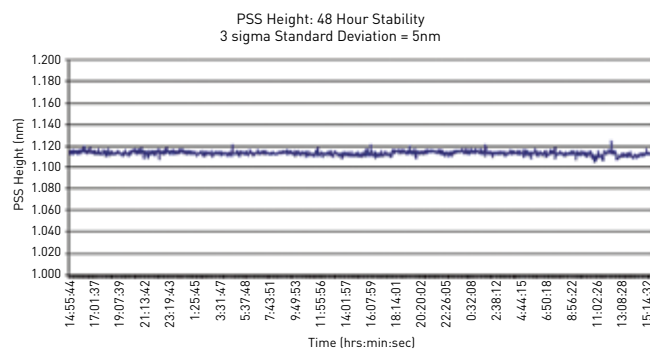
## ContourGT-X8 PSS Optical Profiler

Based on Bruker's flagship ContourGT™ X8, the ContourGT-X8 PSS provides highly-repeatable, high-throughput, precision surface metrology of high-brightness LED (HB-LED) patterned sapphire substrates (PSS) for production QA/QC environments. Offering seamless integration with automated substrate handlers, the ContourGT-X8 PSS enables manufacturers to obtain nanometer-level accuracy

and repeatability while simultaneously measuring the height, width and pitch of multiple PSS features with 230X magnification.

The system's Vision®64 multi-core, 64-bit optimized operations and analysis software and intuitive user interface make it simple to perform multi-region automation, pass-fail, reporting and database functions. With available 2-, 4- or 6-inch vacuum chucks (optimized for wafer handler end effectors), and patented dual-LED illumination and continuous calibration, the ContourGT-X8 PSS delivers unparalleled vibration immunity and tool-to-tool gauge repeatability. The optional System Developer's Kit (SDK) enables easy integration with automated wafer handlers.

Adding PSS-optimized software algorithms to the patented, advanced capabilities of the ContourGT-X8 makes the ContourGT-X8 PSS the industry's most capable, highest-throughput, production-ready precision HB-LED metrology system available today.

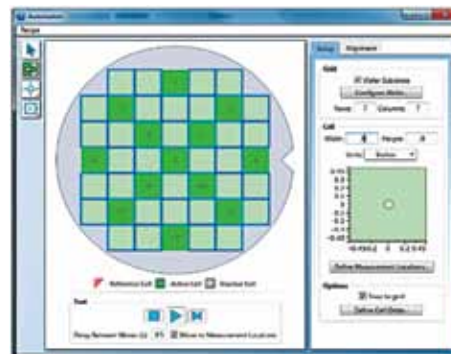


ContourGT-X8 PSS Repeatability

Cover Image Captions:

Top: Dual ContourGT-X8 PSS Systems with Chad Industries WaferMate200-2.

Bottom left and right: ContourGT-X8 PSS real-time screen captures of 3D PSS features.



ContourGT-X8 Vision64 PSS Wafer Automation Screen

KEY FEATURES	
Base System	ContourGT-X8 (see ContourGT brochure for detailed specifications)
PSS-Optimized 230X Optical Interferometer	Unique, thermally stabilized 115X objective, 2X magnifier and single-objective adapter
PSS-Optimized Automation and Measurement Software	Enhanced Vision64 automation, user-definable wafer sampling with automated pass-fail and reporting capabilities; Patent-pending PSS measurement mode for highly repeatable, nm-scale measurements of PSS feature height, width and pitch
PSS-Optimized Vacuum Wafer Chucks	For 2-, 4- or 6-inch sapphire substrates
Wafer Handler and Host Interface	ContourGT acts as slave to wafer handler or host; Includes TCP/IP remote control software, and interfaces for EM0, PDU and vacuum chuck
System Developer's Kit (optional)	Includes TCP/IP remote control host emulator and detailed mechanical, electrical, and vacuum chuck interface documentation
PSS Reference Standard	Commercial 2-inch PSS wafer
SPECIFICATIONS	
Measurement Throughput	≤5 seconds per measurement
PSS Measurement Field of View (FOV)	~20μm <sup>2</sup>
PSS Features Measured per FOV	Typically 20 to 100, with simultaneous measurements of height, width and pitch
Approximate Throughput	≤2 minutes per 2-inch wafer with 13 sites (depending on wafer handler throughput)
3σ Repeatability (20 measurements)	Height: ≤6nm; Width: ≤15nm; Pitch: ≤4nm
Long Term Stability (5 Days)	≤8nm, 3σ height repeatability
Standard Warranty	1 year

Note: Performance specifications are typical and subject to change without notice. Visit the Bruker website for most up-to-date specifications.



### WORLDWIDE CUSTOMER SUPPORT FROM THE INDUSTRY LEADER

Bruker Corporation is a leading provider of high-performance scientific instruments and solutions for molecular and materials research, as well as for industrial and applied analysis. For more information visit [www.bruker.com](http://www.bruker.com), email [productinfo@bruker-nano.com](mailto:productinfo@bruker-nano.com), or call +1.520.741.1044/800.366.9956, ext. 3.