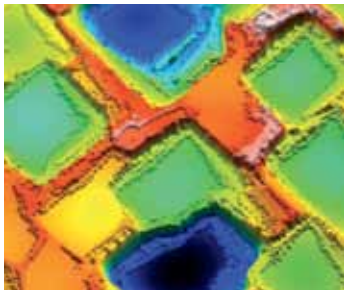


CCI SunStar

Award winning tools for solar cell metrology



The CCI SunStar range

Engineered to challenge your definition of impossible



Optical interferometry without compromise

- 2.2 mm vertical range with closed loop piezoless Z axis scanner
- 0.1 ångström resolution over the entire measurement range
- 2048 x 2048 pixel array for large FOV with high resolution
- 0.3% - 100% reflectivity surfaces measured with ease

Virtual elimination of measurement uncertainty

- <0.2 ångström RMS repeatability, <0.1% step height repeatability
- FEA optimised mechanical design for excellent R&R capability
- Calibration utilising traceability standards ensures acceptance of results
- Automatic set-up features eliminate operator variability

Robust design for long-term cost effectiveness

- Piezoless Z axis scanner eliminates expensive repair bills
- Automatic surface detection prevents crash damage to lens
- Built in self-diagnostic tools for quick and easy troubleshooting
- Ease of operation reduces the possibility of operator mishandling

64-bit control and analysis software

- Multi-language support to ease communication with global partners
- Compatible with most PC platforms for collaborative research projects
- New tools including 4D analysis of 3D surfaces as they evolve over time
- Automatic report generation based on batches of measurement data



Different CCI SunStar systems for different applications



CCI SunStar SR is supplied with a 1 million pixel camera capable of scan speeds up to 18 microns per second, a motorised software driven stage, 2.2 mm closed loop scan range and AutoRange software functionality.

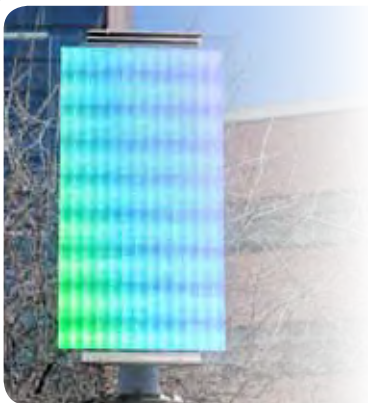
The system is optimised for automatic measurement and analysis of steps and trenches. Optional roughness analysis and a 6-inch sample fixture are available.

Resolution	Software	Scan speed
1M pixels	AutoRange	18 microns / sec

CCI SunStar TF1 has the features offered with the CCI SunStar SR but also includes optional thick film analysis software suitable for multi-layer thickness and roughness of coatings greater than 1.5 microns.



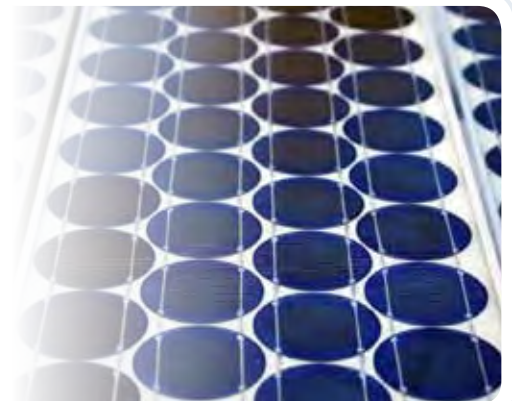
Resolution	Coatings thickness	Scan speed
1M pixels	Down to 1.5 micron	18 microns / sec



CCI SunStar TFE builds on the CCI SunStar TF1 by using a 4 million pixel camera for optimum lateral resolution and extra sensitivity for the measurement of low reflectivity surfaces. The optional film thickness analysis software is ideal for the measurement of single layer thin films down to 50 nm thick, ideal for 2nd generation solar cells.

Resolution	Coatings thickness	Low reflectivity
4M pixels	Down to 50 nm	AR coated samples

CCI SunStar RD is designed to meet demanding research and development needs and is the ideal for all solar cell metrology applications, including 3rd and 4th generation. The system comes supplied with automatic measurement, stitching, multi-site and roughness analysis as standard. A 6-inch stage and film thickness analysis software can also be added.



Resolution	Automation	Flexibility
4M pixels	Multi-site measurement	Optimised for research

Serving a global market

Taylor Hobson is world renowned as a manufacturer of precision measuring instruments used for inspection in research and production facilities. Our equipment performs at nanometric levels of resolution and accuracy.

To complement our precision manufacturing capability we also offer a host of metrology support services to provide our customers with complete solutions to their measuring needs and total confidence in their results.

Contracted Services from Taylor Hobson

- **Inspection services**
measurement of your production parts by skilled technicians using industry leading instruments in accord with ISO standards
- **Metrology training**
practical, hands-on training courses for roundness and surface finish conducted by experienced metrologists
- **Operator training**
on-site instruction will lead to greater proficiency and higher productivity
- **UKAS Calibration and Testing**
certification for artifacts or instruments in our laboratory or at customer's site

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- **Preventative maintenance**
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