

2D/3D WAFER METROLOGY SYSTEM MODEL 7980

Powered by Chroma's game-changing BLiS™ technology, Chroma 7980 offers nanoscale, nondestructive, and high-speed surface profile measurement and analysis. This 3D optical metrology system is specifically designed to deliver highly accurate and reliable profile information for advanced packaging applications.

BLiS™ Technology

The 7980 adopts Chroma's newly developed BLiS™ technology and a specially designed platform to enable 2D and 3D nanoscale measurement. BLiS™ integrates multiple optical probes into a single module, catering to the needs of various advanced packaging applications.

With specialized scanning stage design and innovative algorithms, Chroma 7980 achieves sub-nano resolution, allowing measurement and analysis of surface profiles at unprecedented levels of accuracy and precision. The system's high-speed movement

and short settling time coupled with a large scanning range and quick focusing make it suitable for a wide range of surface structures. Wafers do not need to be pre-processed before measurement.

Chroma 7980's algorithms are purpose-built for various advanced packaging processes, covering measurement applications such as critical dimensions (CD) for TSV and RDL, overlay, and 2D/3D surface topography. Its large-area stitching capability allows the system to meet diverse application needs. The user interface (UI) includes 2D and 3D graphic display for configuring recipes and viewing measurement results.

Quality Control Monitor (QCM)

Chroma 7980 is equipped with a QCM (Quality Control Monitor) that can perform self-tests and monitor system health. All data is NIST-traceable, which ensures system reliability. We are fully committed to providing a dependable 7980 to our customers.

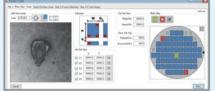
MODEL 7980

KEY FEATURES

- Patented BLiSTM technology for nondestructive surface profile measurement and analysis
- Large-area image stitching
- Fast autofocus for increased WPH
- Quality control monitor
- SEMI S2 certified
- Suitable for wafer sizes from 6" to 12"
- Semi-Auto or Fully-Auto 7980 available

APPLICATIONS

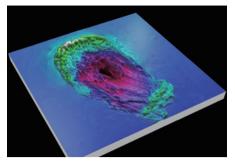
- TSV/VIA: TCD, BCD, and high AR
- RDL: TCD, BCD, and Depth
- 2D/3D critical dimension measurements:
 Overlay, Film Thickness, UBM,
 Bump Height, Step Height
- Nanoscale 3D surface topography

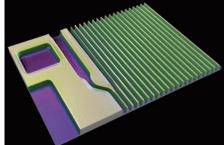


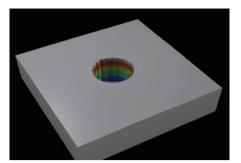




INSPECTION ITEMS







Nanoscale Indentation

RDL Line CD

TSV Top/Bottom CD & Depth

SPECIFICATIONS

Model	7980
Applications	
Wafer Size	Up to 12"
Processes Monitor	TSV: TCD, BCD, Depth; RDL: TCD \ BCD \ Depth Bump Height \ Step Height UBM Overlay Film Thickness Surface Profile
Configurations	
Automation	Semi-Automatic / Fully Automatic
Objective Selection	3D Lens: 5X, 10X, 20X, 50X (Others available) 2D Lens: 2.5X, 5X, 50X, 100X (Others available)
Illuminator	LED
Focus	Motorized manual/automated
Z-Drive(Focus) Stage	60 mm
Motorized Stage	Travel range: X: 475 mm, Y: 410 mm
Isolation	Active Isolation system
Chuck	12" wafer fixture with vacuum
System Controller	i7 class PC with running under Microsoft Windows 10 (64-bit)
Software	Application Software and UI SECS/GEM
Facility	
Clean Room	ISO Class 5
Power	AC 220V±10%

^{*} Specifications are subject to change without notice.

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HEADQUARTERS CHROMA ATE INC. 88 Wenmao Rd., Guishan Dist., Taoyuan City 333001, Taiwan T +886-3-327-9999 F +886-3-327-8898 www.chromaate.com info@chromaate.com U.S.A. CHROMA ATE, INC. (U.S.A.) 7 Chrysler, Irvine, CA 92618 T +1-949-421-0355 F +1-949-421-0353 www.chromaus.com info@chromaus.com EUROPE CHROMA ATE EUROPE B.V. Morsestraat 32, 6716 AH Ede, The Netherlands T +31-318-648282 F +31-318-648288 www.chromaeu.com salesni@chromaeu.com

CHROMA GERMANY GMBH Südtiroler Str. 9, 86165, Augsburg, Germany T +49-821-790967-0 F +49-821-790967-600 www.chromaeu.com salesde@chromaeu.com JAPAN
CHROMA JAPAN
CORP.
888 Nippa-cho,
Kouhoku-ku,
Yokohama-shi,
Kanagawa,
223-0057 Japan
T +81-45-542-1118
F +81-45-542-1080
www.chroma.co.jp

KOREA CHROMA ATE KOREA BRANCH 312, Gold Tower, 14-2, Pangyoyeok-ro 192, Bundang-gu, Seongnam-si, Gyeonggi-do, 13524, Korea T +82-31-781-1025 www.chromaate.co.kr info@chromaate.co.kr

CHINA
Chroma ATE (SUZHOU)
Co., Ltd.
Building 7, ShiShan
Industrial Gallery,
No. 855, Zhu Jiang Rd.,
Suzhou New District,
Jiang Su, China
T +86-512-6824-5425

SOUTHEAST ASIA
QUANTEL PTE LTD.
(A company of Chroma Group)
25 Kallang Avenue #05-02
Singapore 339416
T +65-6745-3200
F +65-6745-9764
www.quantel-global.com
sales@quantel-global.com