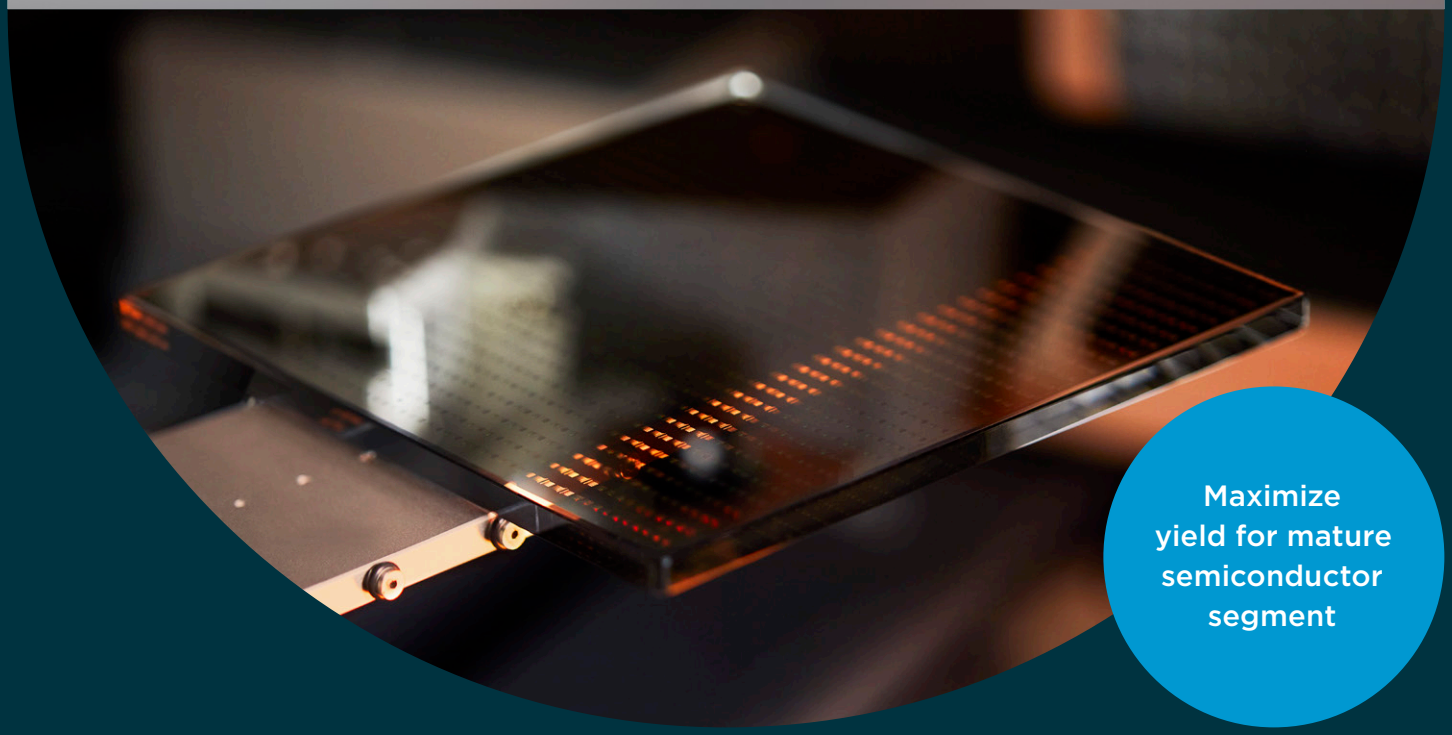
MYCRONIC

Tailor-made **quality measurement**

The MMX™ series





Maximize yield for mature semiconductor segment

Custom-made optical measurement module
Mycronic MMX series is equipped with bespoke camera-based optical module with dual magnifications and Solid State Laser illumination.

Mycronic MMX series
Mastered for productivity, recognized for reliability

By combining optimal mix of proven and new technology, the MMX placement measurement tool is designed to provide excellent performance and best cost of ownership in measurement control to service mature semiconductor manufacturing.

PROVEN PLATFORM AS CORNER STONE
Starting from an existing and proven SLX and EVO platform and leading placement metrology know-how for flat panel display industry, the MMX placement measurement tool leverages the synergies across Mycronic product lines while innovating in key areas to secure performance, usability, and cost efficiency.



SYSTEM DESIGN KEY HIGHLIGHTS

- Custom-made camera-based optical measurement module with solid state laser illlumination
- Modified interferometer positioning system with added wavelength reference
- Climate chamber modification with new temperature control and modified chamber air flow
- State-of-the-art software including modern interface and analyzing tools while supporting the industry standard way of working

BEST VALUE TARGETING MATURE SEMICONDUCTOR SPACE

- Superior measurement speed and low running cost
- Field-proven technology, holistic development approach
- Committed global support, unfailing spares chain
- Batch processing capability and flexible magazine configuration

MYCRONIC ECOSYSTEM

By sharing majority of parts with SLX mask writer, MMX lowers the cost of networking capital while secures access to spare parts world-wide. Our skilled service organization can provide world-class support from day one.

FURTHER LEVERAGE FLEET EFFECT

MMX series is built on shared EVO platform with real-time compensation and substantial logging capability, enabled by the MCMC (Multi Channel Motion Control) servo board. The compatible platform between SLX mask writer and MMX placement measurement tool allows advanced data collection and analysis and future-proof tool-to-tool communication concept.

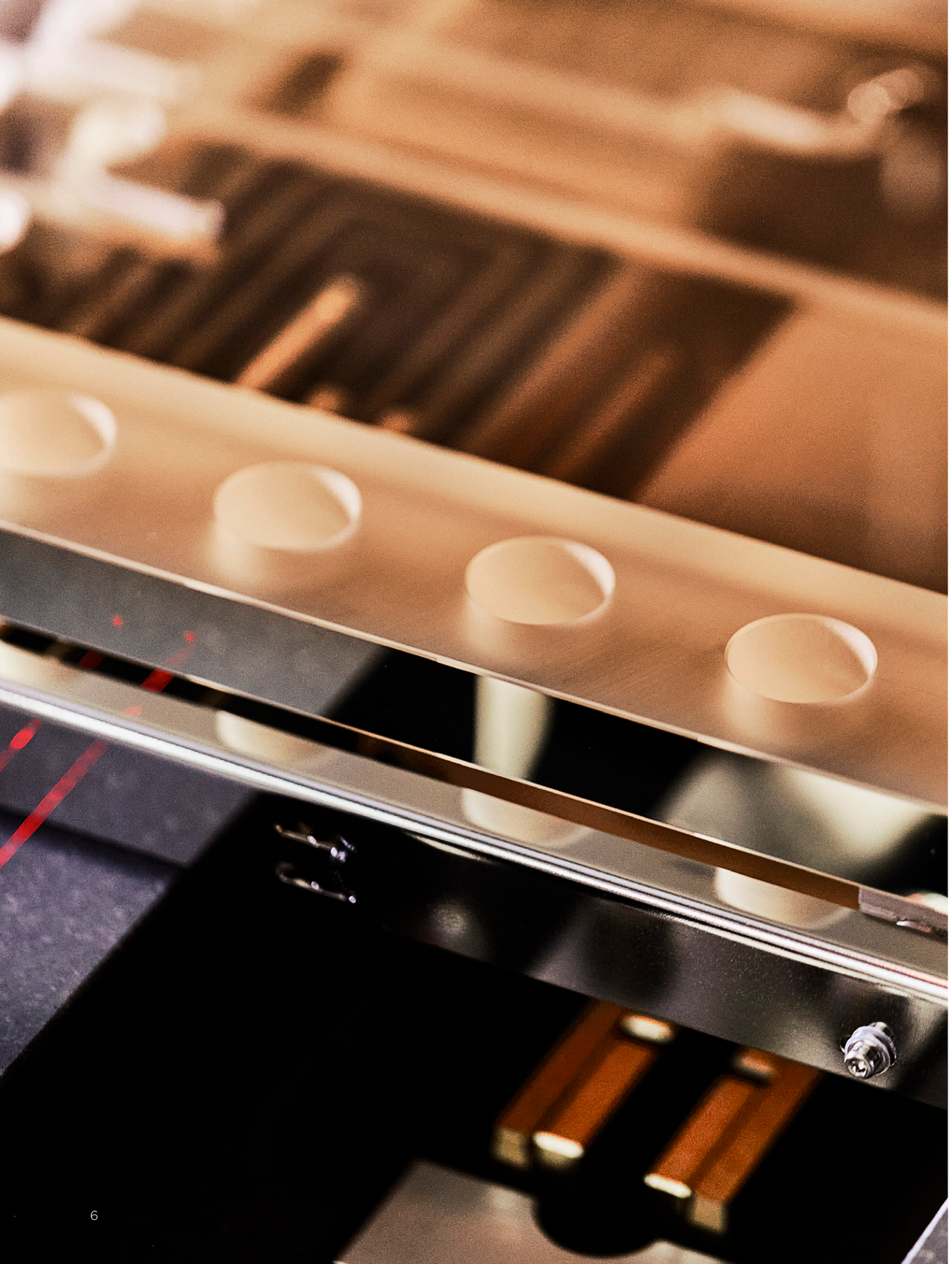
This will be further empowered by MY Intelligence SW Suite to apply Industry 4.0 methodologies to improve quality control in mask shop.

KEY CUSTOMER VALUES

Lower cost per mask
Superior measurement speed and low running cost

Modern work horse
Field-proven technology, holistic development approach

Maximized flexibility
Throughput versatility and batch processing capability



Rise up to maximize yield **by offering seamless quality control**

The MMX series shall continue to expand throughput versatility to serve various use cases and provide additional value to mature semiconductor nodes customers.

MMX fulfills performance requirement for mature semiconductor nodes segment. It strikes a balance between precision and productivity that is tailor-made for the target segment. The tool performance is highly consistent and stable over time to ensure smooth and streamlined production.

The system offers productivity gain and long-term cost savings via high throughput and flexible handling options for cost-efficient production.

The MMX offers two throughput modes, HT (High Throughput) mode and HA (High-accuracy) mode, to capture wide range of demand in accuracy performance.

The system can handle semiconductor substrate sizes from 5" to 9" with flexible magazine configuration to meet the various demand for photomask size depending on user's need and to maximize batch processing capability.

MMX

POSITION MEASUREMENT	HT	HA
Short Term Measurement Repeatability (3s)	5 nm	3 nm
Long Term Measurement Repeatability (3s)	7 nm	4 nm
Nominal Accuracy	12 nm	5 nm
MAM time	4 s	8 s

Bringing tomorrow's electronics to life

MYCRONIC

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