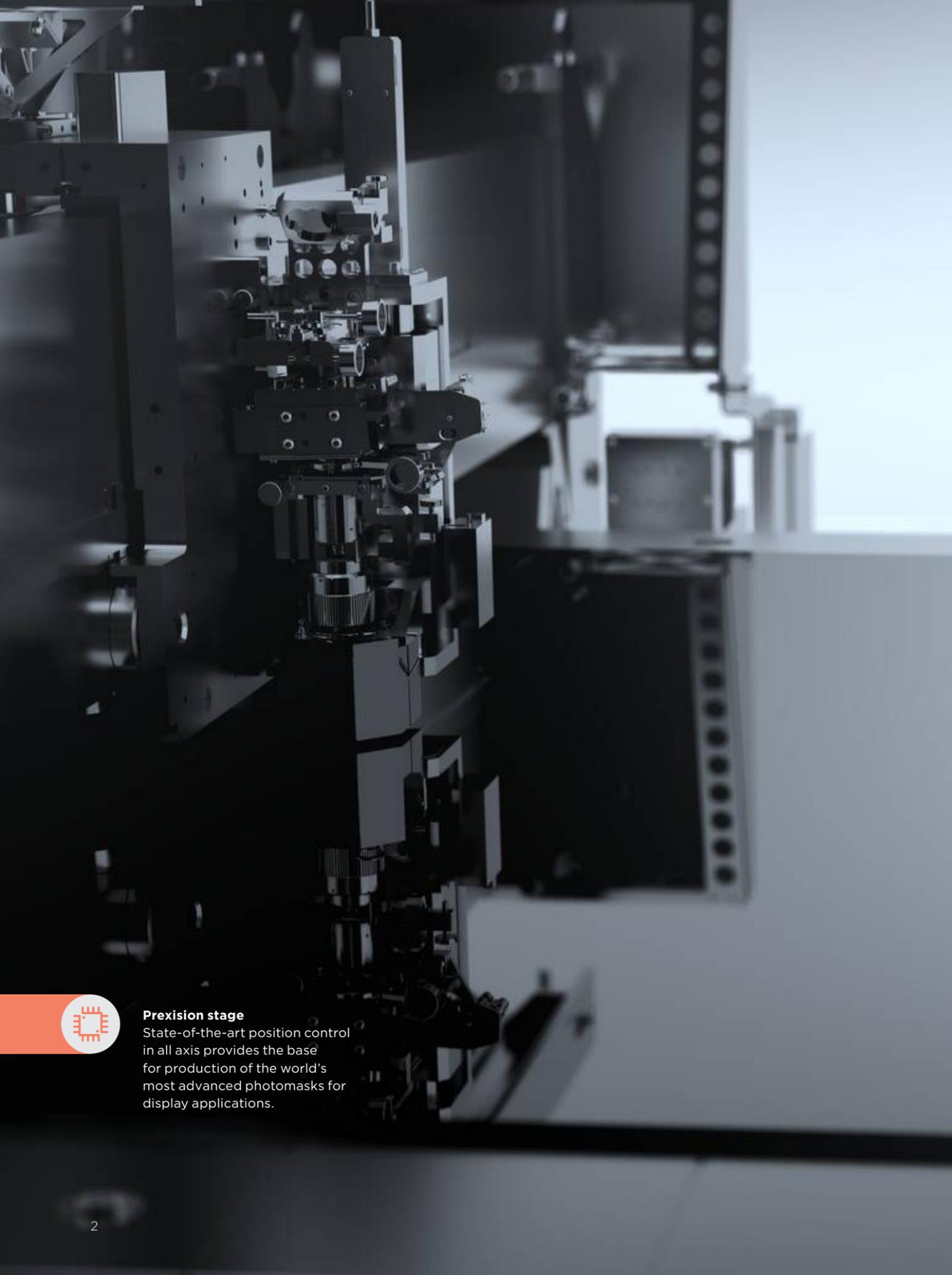


Setting the global **standards for displays**

The new Prexision™ series



Remarkable
precision for
all the world's
displays



Precision stage
State-of-the-art position control in all axis provides the base for production of the world's most advanced photomasks for display applications.

Prexision Evo series

Remarkable precision for all the world's displays

The new generation Prexision series are built on the Evo control platform. Updated with new, innovative software and hardware architecture, it's been designed for the future of production automation, advanced connectivity and big data applications.

IMPROVED STABILITY AND HIGHER UPTIME

New servo board with linear movement, simplified electronics with better performance and modern bus structure provide superior stability and better error handling to create higher system uptime.

SUPPORT FOR HIGHER LEVEL OF FACTORY AUTOMATION WITH VARIOUS LOADER SOLUTIONS

Newly developed PLS (Pre Loading System) and interface supporting communication from factory automation system minimize human interface in order to reduce contamination and human error.

BETTER SUPPORT FOR LOGGING, CONNECTIVITY AND BIG DATA APPLICATIONS

New servo board logs all motions in system which can be analyzed and used for many different purposes. This enables stable system operation and extension to big data applications.

EXTENDABLE WITH NEW FUNCTIONALITY

Built on completely new modern hardware and software architecture, it enables development of new functions to meet customers' future demand.

The highest resolution display photomask writer with the utmost exposure quality.

2X better CD Uniformity performance compared to Precision 8 Evo/ Precision 10

Prexision 800 Evo

The new resolution standard for top critical photomask manufacturing

Prexision 800 Evo is the most advanced mask writer when it comes to efficient production of top critical photomask manufacturing for cutting-edge displays such as AMOLED and foldable displays for flagship smartphones.

2X better CD Uniformity performance compared to Precision 80 Evo, Precision 800 Evo also has the resolution to define feature sizes small enough to enable OPC (Optical proximity Correction), which is required for photomasks used in advanced display manufacturing and in R&D usage for tomorrow's displays.

BENEFITS OF THE PREXISION 800 EVO

- 25% increase resolution with custom made final lens
- 3 times better lens and mirror quality with stress free optic mounter
- More beams to maintain throughput at a higher resolution
- HT mode specs similar as Precision 80 Evo HA mode
- New improved software algorithm to compensate uneven beam performance

PREXISION 800 EVO

KEY SPECIFICATIONS	HA MODE	HT MODE
Minimum lines and spaces (pitch/2)	0.55 μm	0.85 μm
Constituent CD uniformity (3σ)	10 nm	15 nm
CD linearity 1.0-10 μm (p-p)	50 nm	85 nm
Local placement (3σ)	30 nm	50 nm
Written registration (3σ)	125 nm	175 nm
Written overlay (3σ)	40 nm	50 nm
Mask set overlay (3σ)	75 nm	100 nm

Prexision 80 Evo

Higher yield for high resolution advanced LCD and AMOLED displays

Prexision 80 is known for overcoming the challenge of the "invisible Mura" for advanced AMOLED displays for smartphones.

With the Evo control platform, the Prexision 80 Evo is more robust and stable than ever, which is perfect for critical photomasks manufacturing used for high resolution LCDs and mid to advanced AMOLED displays.

KEY HIGHLIGHTS

- Software algorithm to compensate for uneven beam performance
- 2X better CD Uniformity performance compared to Precision 8 Evo/Precision 10
- Z-correction as a standard function

PREXISION 80 EVO

KEY SPECIFICATIONS	HA MODE	HT MODE
Minimum lines and spaces (pitch/2)	0.75 μm	1.0 μm
Constituent CD uniformity (3σ)	15 nm	25 nm
CD linearity 1.5-10 μm (p-p)	50 nm	85 nm
Local placement (3σ)	30 nm	50 nm
Written registration (3σ)	150 nm	175 nm
Written overlay (3σ)	50 nm	70 nm
Mask set overlay (3σ)	75 nm	100 nm

Prexision 8 Evo & Prexision 10

The best fit for volume production of photomasks for advanced LCDs

Prexision 8 has been the display industry standard for a decade, and is now being upgraded to the Prexision 8 Evo.

Prexision 8 Evo is a well-balanced system for users who aim for both performance to meet advanced photomask requirements and productivity which can handle up to generation 8 photomask size. Prexision 10 system can handle up to generation 10 mask size with equivalent performance and productivity as Prexision 8 Evo system.

KEY HIGHLIGHTS

- The most balanced system between performance and volume production of advanced TFT LCD photomask
- New calibration procedures used for advanced mask writer to maintain system performance for Prexision 8 Evo

PREXISION 8 EVO

*Requires Z-correction option

KEY SPECIFICATIONS	HA MODE	HT MODE
Minimum lines and spaces (pitch/2)	0.75 μm	1.0 μm
Constituent CD uniformity (3σ)	20 nm	25 nm
CD linearity 1.5-10 μm (p-p)	50 nm	85 nm
Registration (3σ)	90 nm	90 nm
Written overlay (3σ)	120 (90*) nm	150 (120*) nm
Mask set overlay (3σ)	90 nm	120 nm

PREXISION 10

*Requires Z-correction option

KEY SPECIFICATIONS	HA MODE	HT MODE
Minimum lines and spaces (pitch/2)	0.75 μm	1.0 μm
CD uniformity (3σ)	60 nm	85 nm
CD linearity 1.5-10 μm (p-p)	50 nm	85 nm
Registration (3σ)	90 nm	90 nm
Written overlay (3σ)	120 (90*) nm	150 (120*) nm
Mask set overlay (3σ)	90 nm	120 nm

Prexision 8 Entry Evo & Prexision Lite 8 Evo

A cost-efficient mask writer for low to mid-end display photomasks

Prexision 8 Entry Evo and Prexision Lite 8 Evo is developed and based on solid know-how and experience, paired with new technologies proven from Evo platform to address low to mid-end display photomask manufacturing. Prexision 8 Entry Evo is upgradable to complete Prexision 8 Evo offering a wide range of choices depending on the user's business strategy.

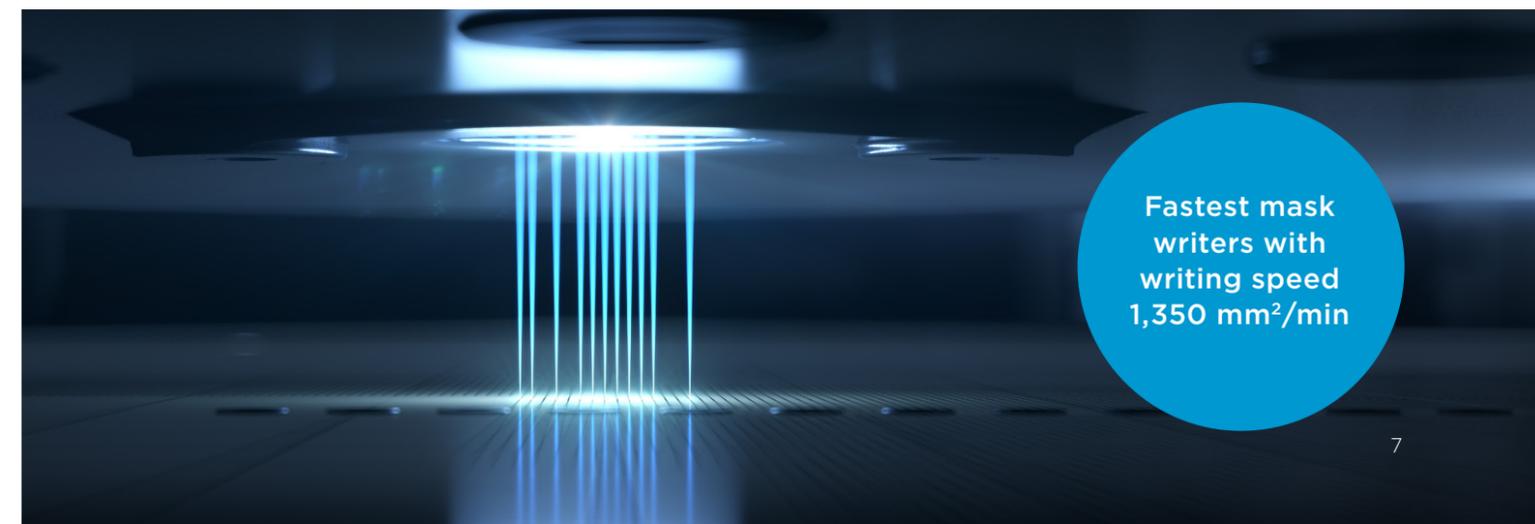
KEY HIGHLIGHTS

- Fastest mask writers with writing speed 1,350 mm^2/min
- Stable datapath to handle increasing data size
- Adoption of improved calibration procedure from advanced mask writers
- Prexision 8 Entry Evo upgradable to complete Prexision 8 Evo to widen addressable market

PREXISION 8 ENTRY EVO & PREXISION LITE 8 EVO

*Requires Z-correction option

KEY SPECIFICATIONS	PREXISION 8 ENTRY EVO	PREXISION LITE 8 EVO
Minimum lines and spaces (pitch/2)	1.2 μm	1.2 μm
Constituent CD uniformity (3σ)	30 nm	30 nm
CD Linearity 2.4-10 μm (p-p)	85 nm	85 nm
Registration (3σ)	90 nm	120 nm
Written overlay (3σ)	150 (120*) nm	300 (250*) nm



Bringing tomorrow's electronics to life

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