

ASMPT enabling the digital world



ENABLING THE DIGITAL WORLD

SIPLACE TX micron

The new standard in advanced production

FASTER AND MORE ACCURATE SIPLACE TX micron

A MILESTONE FOR ADVANCED PACKAGING AND HIGH-DENSITY APPLICATIONS

With the SIPLACE TX micron, you run advanced packaging and high-density applications with the performance of state-of-the-art SMT technology (up to 96,000 cph) and unprecedented precision. Three precision classes in a single machine: 25, 20 and 15 μm @ 3 σ with placement pitches of as little as 50 μm . The performance and upgradeability of the SIPLACE TX micron protect your investment.

Smart features such as die crack inspection and die chipping detection ensure the highest yields and maximum productivity.

TWO PLACEMENT HEADS

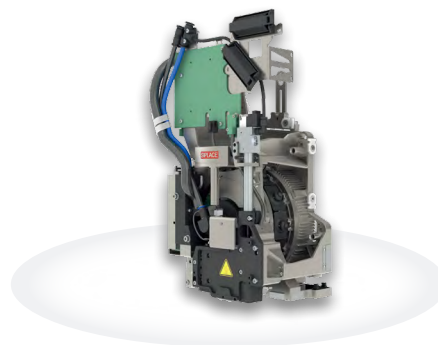
HIGHLY PRECISE AND ULTRA-FLEXIBLE

The entire placement process can be programmed in detail for each component and placement position – including touchless pickup and zero-force placement.



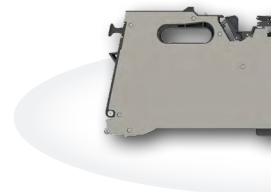
SIPLACE SpeedStar

- Component spectrum: 0201 metric to 8.2 mm × 8.2 mm × 4 mm
- For the most sensitive components: Thin dies with heights up to 50 μm (minimum height)
- Extremely fast: Up to 48,000 cph
- Extremely precise: Up to $\pm 15 \mu\text{m}$ @ 3 σ



SIPLACE MultiStar

- Switches from pick-and-place to collect-and-place to mixed mode based on software commands
- Component spectrum: 0402 metric to 27 × 27 mm × 6 mm
- High speed: Up to 23,850 cph
- Extremely precise: Up to $\pm 20 \mu\text{m}$ @ 3 σ

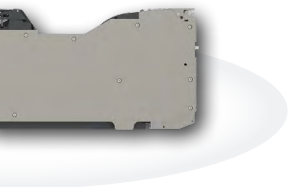


FOR SENSITIVE COMPONENTS: MAXIMUM PRECISION



NEW SMART FEEDERS

PERFECT COMPONENT SUPPLY



SIPLACE Smart Feeder Xi

- New 4-mm, 8-mm and 2 × 8-mm feeder modules
- Microtape-ready
- Ready for pickup: Vacuum ensures level blister pocket bottoms for faster, more accurate component pickups

For sensitive components

Individually programmable placement process with touchless pickup and zero-force placement



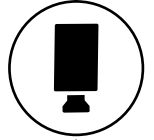
Die crack/die chipping detection

For minimal dpm rates: The vision system recognizes even the finest component damage and hairline cracks without slowdowns.



Vision system with blue light

High-contrast images of even the smallest components (01005, 0201m) and differentiation of special characteristics (copper pillars)



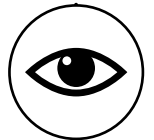
Maximum performance

With its two gantries and innovative placement modes, the SIPLACE TX micron reaches speeds of up to 96,000 cph.



Flux detection/inspection

Optical control ensures high yields when using dipping units.



Cleanroom certification

Class 7 certification as per DIN EN ISO 14644-1 and SEMI S2/S8.



MANY INNOVATIONS: ACCURACY BY DESIGN

PERFECT INTERACTION

With its many innovations, the SIPLACE TX micron overcomes traditional placement accuracy limitations. Its perfect interaction of temperature-resistant glass scales, fiducials, high-resolution optical sensors and innovative vacuum toolings ensures extremely precise positioning while delivering maximum performance. Your gain: Maximum quality and productivity even for extremely small components and the tightest component pitches with maximum accuracy.

SIPLACE TX micron

SIPLACE TX micron		
Speed (benchmark rating)	Up to 96,000 cph	
Placement accuracy (3 σ)	Up to 20 μm	Up to 15 μm
PCB dimensions (L x W)	50 mm x 45 mm to 375 x 260 mm (dual-lane mode) 50 mm x 45 mm to 375 x 460 mm (single-lane mode)	50 mm x 55 mm to 250 x 100 mm
Machine dimensions (L x W x H)	1.00 m x 2.23 m x 1.45 m	
Component supply	Up to 80 8-mm feeders, JEDEC trays	
Power consumption (avg.)	2.0 kW for SIPLACE TX2i micron with CP20M3 (1.2 kW for SIPLACE TX2 micron with CPPM)	
Air consumption	120 NI/min (2 x SIPLACE SpeedStar)	
Certifications	Semi S2/S8, Clean Room Class ISO 7	
Data interfaces	IPC-HERMES-9852, IPC-CFX, IPC-SMEMA-9851	

Placement heads	SIPLACE SpeedStar (CP20M3)	SIPLACE MultiStar
Speed (benchmark rating)	Up to 48,000 cph	Up to 23,850 cph
Component spectrum	0.12 x 0.12 mm to 8.2 x 8.2 mm*	0.11 x 0.11 mm to 27 x 27 mm**
Min. lead pitch	70/50* μm	120 μm
Min. lead width	30/25* μm	50 μm
Min. ball pitch	100/50* μm	140 μm
Min. ball diameter	50/25* μm	70 μm

* With optional high-resolution camera (SST49) with blue light

** With optional high-resolution camera (SST30)

YOUR TECHNOLOGY PARTNER FOR ADVANCED PACKAGING

Advanced packaging, one of today's key technologies in electronics production, blurs the lines between semiconductor production/OSATs, IDMs, and demanding SMT applications. In times of rising time, cost and efficiency pressures, the production of SiPs and SoCs as well as the processing of dies and flip-chip modules on high-precision SMT platforms is becoming more common every day. With the SIPLACE TX micron you can use the performance of state-of-the-art SMT technologies in advanced packaging and high-density applications to replace significantly less efficient bonding solutions.

As the world's largest supplier to the electronics industry, ASM serves the backend segment for semiconductor manufacturers and OSATs as well as classic SMT production facilities. The development of the new SIPLACE TX micron was based on decades of experience and the latest technologies from both fields to raise advanced packaging and high-density applications to a new level of productivity.

smt.asmpt.com

More about
SIPLACE TX
micron



ASM Assembly Systems GmbH & Co. KG

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