



SCREEN Develops Lemotia Coater/dryer System for Advanced Semiconductor Packaging

Kyoto, Japan – December 5, 2023 – SCREEN Finetech Solutions Co., Ltd. (SCREEN FT) has finalized the development of its new Lemotia coater/dryer system, specifically designed for use in advanced semiconductor packaging of FOPLP,¹ glass core² and related substrates. These substrates continue to be in high demand for 5G/post-5G, IoT infrastructure and data center applications. Lemotia is scheduled for release in April 2024 via SCREEN Holdings Co., Ltd.

FOPLP has been attracting significant attention in recent years with the ongoing development of devices for data centers targeting 5G/post-5G and IoT applications. Using a panel level format, FOPLP has cost advantages and productivity benefits over conventional packaging methods. Meanwhile, manufacturers have been working to address the warping of substrates caused by an increase in RDL,³ as they strive to improve yield rates. The issue has created a growing need for production equipment that can deal with substrate warping and deliver high precision film deposition.

With these factors in mind, SCREEN FT has developed Lemotia, a new coater/dryer system specifically designed for advanced semiconductor packaging applications. Lemotia incorporates the same technologies and expertise SCREEN FT has refined with its SK series of coater/developers. The series currently boasts the top market share worldwide in the display segment.⁴

Lemotia brings together all of SCREEN FT's advanced coating technologies and is capable of handling a wide range of chemicals from high to low viscosity, making it ideal for the increasingly complex and high precision FOPLP production process. Each of Lemotia's processing units is also equipped with a mechanism that prevents warping to ensure excellent uniformity during film deposition.

In developing Lemotia, SCREEN FT has completely revamped all aspects of its design, creating a system that is ideally suited for PLP. Compared to SCREEN FT's conventional systems, Lemotia has a 30% smaller footprint and requires 10% less power. It also incorporates various features intended to make it more environmentally friendly.

SCREEN FT's upcoming addition of Lemotia to its lineup is expected to significantly accelerate its business expansion in the rapidly growing package substrate market. SCREEN FT is fully committed to meeting the diverse needs of this industry and to supporting its continuing development going forward.

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- 1. Fan-out panel level packaging: A semiconductor packaging technology utilized when the production method for fanout wafer level packages (FOWLP) is applied to larger panels rather than wafers.
- 2. A type of semiconductor packaging substrate that uses glass instead of a conventional resin substrate.
- 3. Redistribution layer: A wiring layer made up of copper (Cu) and an insulating layer.
- 4. For coater/developers for TFT arrays. Based on research by SCREEN FT in 2022.

Advanced Packaging and Chiplet Summit (APCS) 2023

 Lemotia will be introduced by SCREEN Holdings at the Advanced Packaging and Chiplet Summit (APCS) 2023, to be held from December 13 (Wed) to 15 (Fri) at Tokyo Big Sight.
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