SCREEN

News Letter

SCREEN Holdings Co., Ltd.

SCREEN Expands Lineup of LeVina Direct Imaging Systems

– Model with Exposure Wavelength of 375 nm to Launch in July –

Kyoto, Japan – March 9, 2023 – SCREEN Holdings Co., Ltd. has finalized development of a new model with a resolution of 2 μm for its lineup of LeVina direct imaging systems for next-generation patterning. SCREEN has created its LeVina range specifically to handle IC package substrates and FOPLP,[1] which continue to see growing demand, particularly for 5G, post-5G and IoT infrastructure applications. The new model is scheduled for release in July.

LeVina (2 μm model)
Please download the photo from
www.screen.co.jp/en/about/nr-photo_2023

In recent years, the expansion of 5G, post-5G and IoT infrastructure applications, as well as the current digital transformation (DX) and green transformation, have created a growing need for higher performance from package substrate technologies. This has led to an increasing requirement for new systems that can deliver both high precision direct imaging and outstanding productivity.

In response to these calls, SCREEN has developed a new 2 μm model for its lineup of LeVina direct imaging systems for next-generation patterning. The system is scheduled for release this July. It will inherit the proven high speed stage and advanced scan alignment function of the current model, launched in January 2022, enabling it to provide the same excellent productivity. It will also feature a revamped optical unit with an exposure wavelength set to 375 nm that achieves an industry-leading resolution of 2 μm.

In addition to the IC package substrates usually targeted by LeVina systems, it is anticipated these technologies will allow the new model to produce the advanced semiconductor packages required for FOPLP and chiplets[2] called 2.1D and 2.3D.[3] Adopting an exposure wavelength of 375 nm will also enable it to perform exposure for liquid resists, as well as dry film resists.

Once the new model joins the current 405 nm wavelength model in the expanded LeVina lineup,

manufacturers will be able to choose a system based on specific materials and applications. Companies that have already installed a 405 nm model will also have the option of replacing the optical unit, allowing them to convert it to a 375 nm wavelength. This will enable the construction of a flexible production line that can be adapted for different applications.

The upcoming expansion of the LeVina range is expected to accelerate SCREEN's advance into the package substrate market, which continues to enjoy strong growth due mainly to the ongoing deployment of IoT infrastructure as well as 5G and post-5G related technologies. SCREEN remains fully committed to meeting the diverse needs of the semiconductor package industry and contributing to its future development.

1. A semiconductor package utilized when the production method for FOWLP is applied to larger panels rather than wafers.
2. Conventionally, manufacturers have followed a system on chip (SoC) approach, in which CPU, GPU, memory and other functions are packed onto a single chip. However, by producing individual chiplets with separate functions and then connecting them inside a package, manufacturers have been able to reduce production costs while enhancing performance.
3. Semiconductor packages with a structure that integrates an organic interposer into the surface of an organic substrate.

JPCA Show 2023

The new LeVina model will be on display at JPCA Show 2023, to be held from May 31 (Wed) to June 2 (Fri) at Tokyo Big Sight in Ariake, Tokyo.
URL: https://www.jpcashow.com/show2023/en/

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