

SCREEN Semiconductor Solutions Co., Ltd.

SCREEN Releases New Inspection and Measurement Systems Targeting the IoT-Related Electronic Device Market

*- A Comprehensive Lineup of High-Precision, High-Throughput Models Based on
SCREEN's Integrated Platform Concept -*

Kyoto, Japan - July 10, 2017 - SCREEN Semiconductor Solutions Co., Ltd. has finalized development of three new cutting-edge systems, the ZI-3500 wafer pattern inspection system, the RE-3500 ellipsometric film thickness measurement system and the VM-3500 spectroscopic film thickness measurement system. The ZI-3500 provides reliable inspection for a wide variety of patterns used in device manufacturing processes while the high-end RE-3500 enables exact measurement of ultra-thin films formed on wafer surfaces. In addition, the VM-3500 supports advanced non-contact, non-destructive measurement of films using spectroscopic reflectometry. All three systems are scheduled for release on July 10.

**ZI/RE/VM-3500**

Please download the photo from
www.screen.co.jp/eng/press/download/SPE170710-2.zip

In recent years, the semiconductor market has seen a continuing miniaturization of wafers as well as a rapid increase in demand for wafers specifically targeting mobile device and IoT applications. These trends have significantly increased the important role played by process management in semiconductor manufacturing. For inspection and measurement processes, this has also led to a growing need for systems that can provide the high productivity required for mass production while delivering even more precise and reliable handling of extremely fine patterns.

SCREEN's newly developed ZI-3500 wafer pattern inspection system is designed to handle wafers of up to 300 mm and features a proprietary 1.0 μm high-resolution lens that supports superior high-precision inspection. It also enables outstanding throughput that boosts performance by around 150% compared to the previous model.

The RE-3500 ellipsometric film thickness measurement system employs microspot optics that provide highly precise measurement of minute areas of 40 μm square while delivering processing speeds approximately 200% faster than the previous model. In addition, the VM-3500 spectroscopic film thickness measurement system facilitates the rapid measurement of a wide range of film thicknesses using light interference waveforms, making it ideal for film thickness control on mass production lines.

Each of the three systems inherits the best functions from earlier SCREEN models while incorporating a range of new features that support high-precision, high-throughput operation and outstanding cost performance based on a shared integrated platform concept. In addition to offering highly compact main bodies, each system is able to support wafer sizes from 100 to 300 mm and can be equipped with a variety of transport mechanisms for FOUP, SMIF and open cassettes. The systems also use many of the same parts, allowing for a more stable supply of replacements with shorter lead times.

SCREEN's release of its new ZI-3500, RE-3500 and VM-3500 models will significantly enhance the company's lineup of inspection and measurement equipment. The three systems are expected to make a major contribution to the semiconductor device market while it continues its rapid expansion.

Note: SCREEN plans to introduce all three systems at SEMICON West 2017, which is being held from July 11 (Tue) to 13 (Thu) in San Francisco, USA.

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