

## News Release

# Yamaha powers surface-mount production upgrade at building-automation innovator Vimar

**Latest Sigma premium mounters and YRi-V 3D AOI chosen to boost future productivity and quality, building on historical success**

Yamaha Robotics SMT Section has supplied three Sigma G5SII surface mounters and the latest YRi-V 3D optical inspection system to Vimar, which produces wiring devices, systems for smart home and building automation, video door entry, CCTV and temperature control products.



Vimar's logistics and production hub – Italy

Vimar has chosen the Yamaha equipment for a new surface-mount assembly line going live this summer in the Company's new logistics and production hub at Marostica, north eastern Italy. The new line delivers extra manufacturing capacity, needed to meet surging market demand for Vimar's products, which utilise advanced technologies to support secure, safe, and energy-efficient living. They include smart switches, home automation products, climate management controllers, door entry systems, and others. Some of these products are based on Bluetooth® wireless technology or KNX protocol and they are widely used in all environments, from small to large buildings, as well as ships and yachts.

“Smart spaces are designed to be comfortable, connected, and enhance sustainability. We believe they should be stylish too, and our approach has won industry awards throughout Europe,” explains Michele Campagnolo, Engineering Manager and Purchasing Director at Vimar. “We blend great aesthetic designs with cutting-edge technology embedded in our products. Our long-standing connection with Yamaha helps ensure all the electronic assemblies we build are of the highest quality.”



l to r: Michele Campagnolo, Loris Canderle, Marco Carraro, Stefano Lanaro, Enrico de Grandis

Vimar already owns three Yamaha G5SII mounters and has extensive experience with the Sigma platform, having worked with Yamaha key account manager Riccardo Fiocchi for more than 20 years. According to Michele Campagnolo, the existing machines have delivered excellent reliability and advanced features that help maintain consistently high placement speed and accuracy. He adds, “When we expanded the factory and planned our new line, we chose the Sigma G5SII again for its excellent performance and to keep compatibility with our existing feeders and nozzles. Riccardo at Yamaha understands our business and the values we seek to maintain, so his help enabled us to ensure the right specification for our needs.”



The two Yamaha lines at Vimar

In the existing line, the three G5SII machines are working alongside a Yamaha YSi-V 3D AOI system. The YSi-V delivers inspection resolution up to 12Mpixels, with 4-angle inspection at multiple wavelengths to enhance accuracy. Vimar's manufacturing team members are familiar with the YSi-V and pleased with its abilities to help quickly localise the causes of any defects. It can identify in near real-time the exact mounter nozzle and stencil aperture concerned with any discovered defect.

“Our YSi-V AOI has performed so well that the next-generation YRi-V system was the only choice we considered for the new line,” continues Michele Campagnolo. “With AI-accelerated component recognition and even more powerful inspection capabilities, we can introduce new products more quickly and rely on consistent inspection coverage. This will allow us to continue creating new board designs that leverage greater component density to pack more features in smaller dimensions.”

The YRi-V has an enhanced illumination system with an 8-way projector that prevents shadowing to enhance inspection of closely spaced components. The new system also comes with an upgraded image-processing subsystem that accelerates inspection cycle time by at least 60%, 4-angle camera resolution increased to 20Mpixel, and a new and enhanced 5 $\mu$ m lens option that can spot defects such as minute scratches and cracks in the most state-of-the-art miniaturised component packages. Moreover, the embedded AI uses machine learning to automate component-library selection and generate new component files, as well as aiding pass/fail image assessment.

“The latest-specification Sigma G5SII delivers advanced performance with legacy compatibility, and the next-generation YRi-V 3D AOI is ready to inspect the most difficult and challenging assemblies,” comments Yamaha’s Riccardo Fiocchi. “Combining both in their new line has enabled Vimar to increase manufacturing capacity while also securing future-proof capability. It’s good to see that the team is equipped to succeed as the building automation market continues to grow and evolve.”

### **About Yamaha Robotics SMT Section**

Yamaha Surface Mount Technology (SMT) Section, a subdivision of Yamaha Motor Robotics Business Unit in Yamaha Motor Corporation, produces a complete selection of equipment for high-speed inline electronic assembly. This 1 STOP SMART SOLUTION includes solder paste printers, component mounters, 3D solder paste inspection machines, 3D PCB inspection machines, flip-chip hybrid placers, dispensers, intelligent component storage, and management software.

Bringing the Yamaha way to electronics manufacturing, these systems prioritize intuitive operator interaction, efficient coordination between all inline processes, and modularity enabling users to meet the latest manufacturing demands. Group competencies in servo-motor control and image recognition for vision (camera) systems ensure extreme accuracy with high speed.

The current product line includes the latest YR equipment generation, with advanced automated features for programming, setup, and changeovers, and new YSUP management software with state-of-the-art graphics and built-in data analytics.

Combining design and engineering, manufacture, sales, and service competencies, Yamaha SMT Section ensures operational efficiency and easy access to support for customers and partners. With regional offices in Japan, China, Southeast Asia, Europe and North America, the company provides truly global presence.

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