

# iRAYPLE Launched New R5000P Series Code Readers for Complex Industrial Scenarios

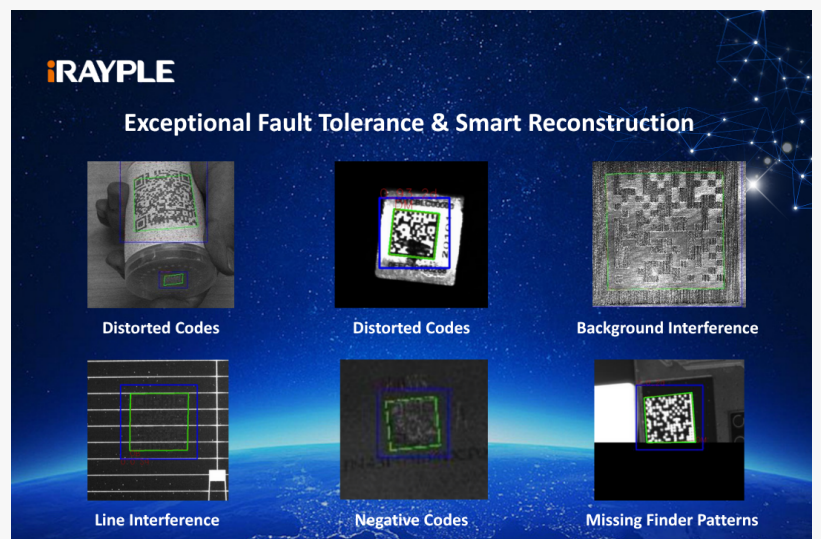
HANGZHOU, ZHEJIANG, CHINA,  
December 11, 2025 /

EINPresswire.com/ -- [iRAYPLE](#) today announced the official launch of its next-generation R5000P Series Industrial Code Readers, featuring a high-performance AI processor and the iRAYPLE's newly enhanced AI decoding algorithm. Engineered for demanding industrial environments, the series delivers significantly improved decoding accuracy—particularly for worn, damaged, low-contrast, or otherwise challenging barcodes. The R5000P Series is designed for broad adoption across lithium battery manufacturing, 3C electronics, pharmaceutical production, and PCB inspection.

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Designed for harsh industrial applications, the system effectively addresses wear, contamination, physical damage, blurring, and low contrast. These capabilities greatly improve the readability of difficult codes and ensure stable output in complex environments

Leveraging AI models trained on extensive industrial datasets, the system automatically reconstructs the full QR code structure during recognition. This significantly enhances decoding accuracy and increases adaptability across diverse application environments.



AI Decoding Upgrade for Complex Scenarios



33% Performance Boost with 65% Size Reduction

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With a compact 57 × 37 × 39 mm housing, the R5000P reduces its overall volume to just 35% of the previous generation, making it ideal for space-constrained installations.

The series also inherits the rear-interface design of the R4000 Series and supports 90-degree rotation, enabling greater installation flexibility and eliminating on-site cable adaptation challenges.

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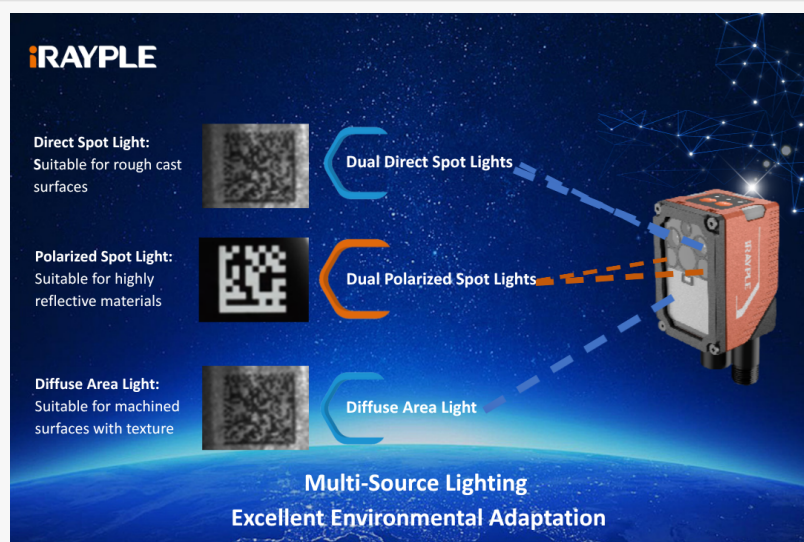
The R5000P integrates a multi-color illumination module, offering selectable red, white, and blue lighting to accommodate different application backgrounds.

Each device additionally supports direct, polarized, and diffuse illumination, ensuring stable decoding performance on complex materials such as metals, silicon wafers, and mirror-like surfaces.

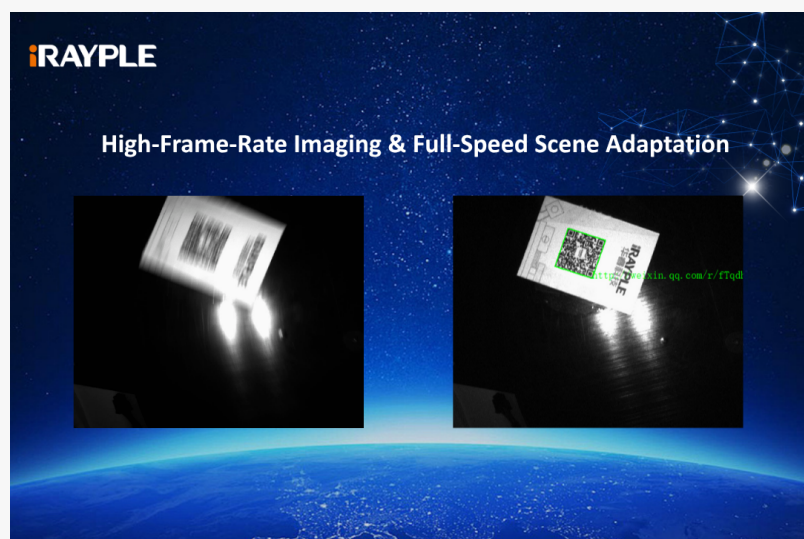
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The R5000P supports high-definition image capture at up to 60 fps and maintains a smooth 50 fps output even at 5 MP resolution.

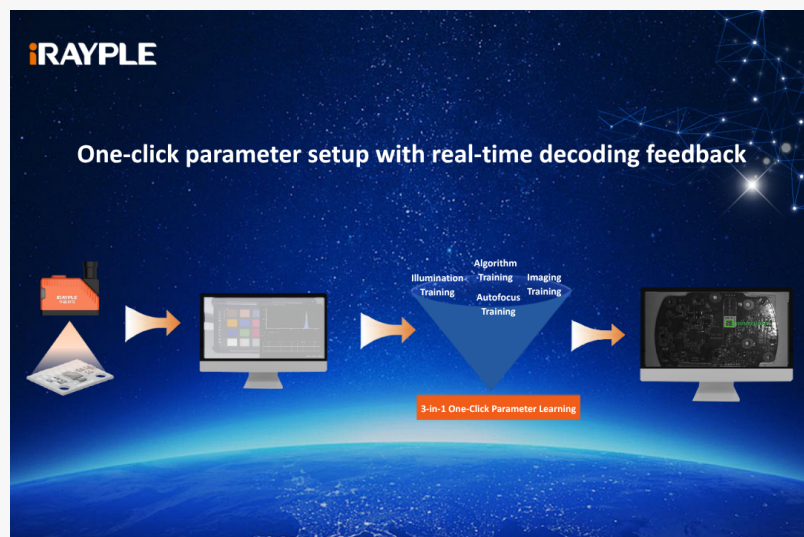
With dynamic decoding speeds reaching up to 3 m/s, the series is optimized for high-speed production lines and mobile robotic platforms,



Multi-Source Illumination for Enhanced Environmental Adaptability



High-Speed Imaging and Efficient Decoding



One-Click Training for Rapid Deployment

delivering reliable performance in demanding industrial workflows.

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Equipped with an electric zoom lens, the R5000P Series integrates seamlessly with iRAYPLE's proprietary imaging and AI algorithms. With a single click, the system completes autofocus, auto-exposure, image training, and decoding optimization. This allows operators to configure parameters quickly—without specialized technical expertise—greatly reducing commissioning time and streamlining deployment.

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iRAYPLE, the flagship brand of Zhejiang HuaRay technology Co., Ltd, is a professional company focusing on R&D, manufacturing, and sales of machine vision and autonomous mobile robot (AMR) products and solutions. Concentrating on smart manufacturing, we have always insisted on satisfying customers' needs, creating value to help customers reduce costs, and making factories smarter. Founded in 2016, the business has expanded to cover more than 50 countries and regions.

Dan Luo

Zhejiang HuaRay Technology Co.,Ltd

+ +86 199 5719 3925

dan.luo@irayple.com

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