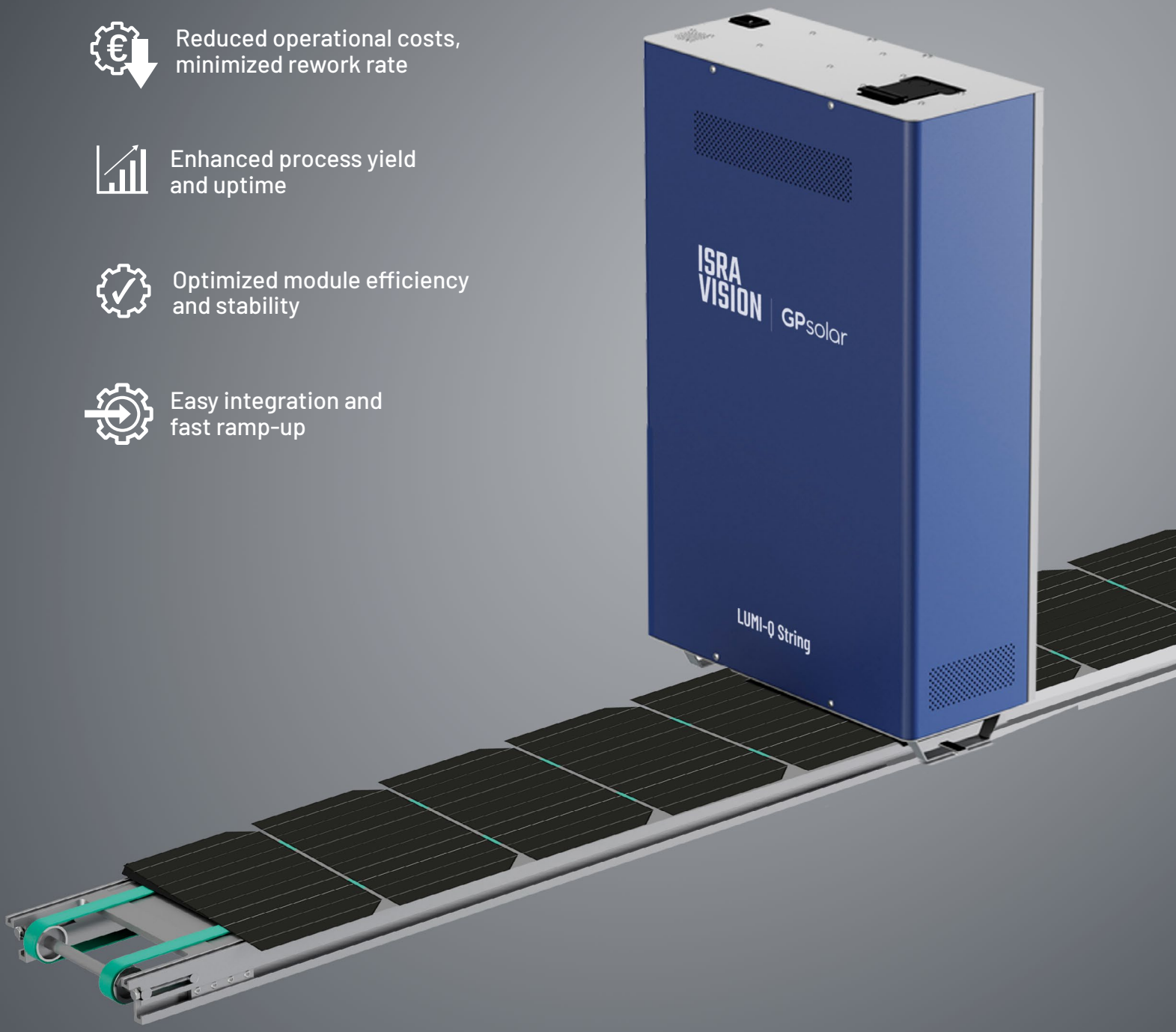
- Reduced operational costs, minimized rework rate
- Enhanced process yield and uptime
- Optimized module efficiency and stability
- Easy integration and fast ramp-up



LUMI-Q String

String inspection and monitoring with photoluminescence

ISRA VISION
Part of Atlas Copco Group

ABOUT LUMI-Q STRING

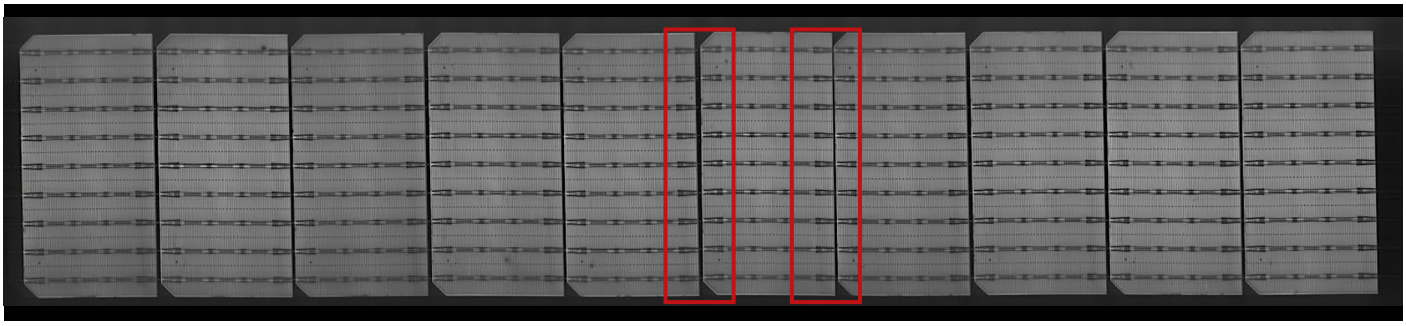
LUMI-Q String is an inspection system capable of detecting both electrical/material and geometric defects on solar strings. Using a laser-free and contactless method, it guarantees comprehensive defect identification and classification, even for the most complex cell structures with the smallest finger and busbar widths.

LUMI-Q String integrates seamlessly into the stringer outlet without requiring additional space, making it retrofittable. With its fast measurement speed and robust data management capabilities, LUMI-Q String improves module manufacturing and ensures unparalleled module quality and efficiency.

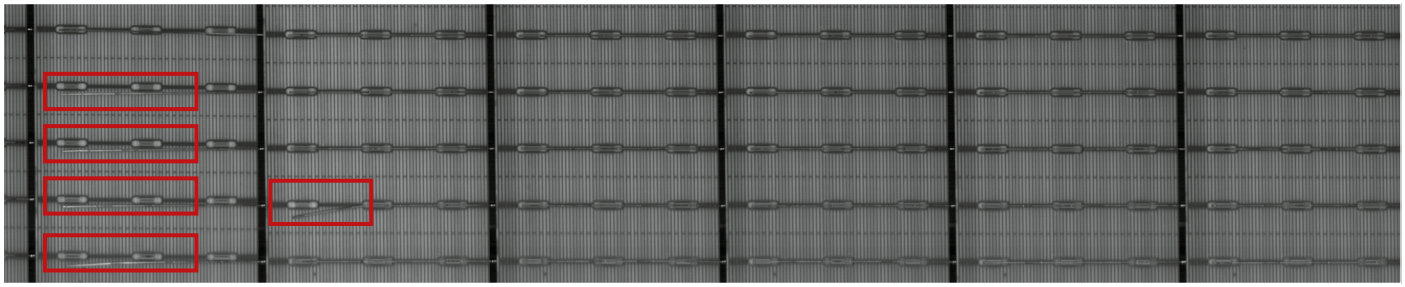
KEY FEATURES

- **Detection of all relevant defects directly in stringer**
- **Fast measurement speed:**
  ≥ 800 mm/s @ 3k
  ≥ 1200 mm/s @ 1k
- **Laser-free for reduced safety requirements**
- **Seamless integration without additional footprint**
- **Optional: Fast data management with central recipe management and comprehensive data reporting**

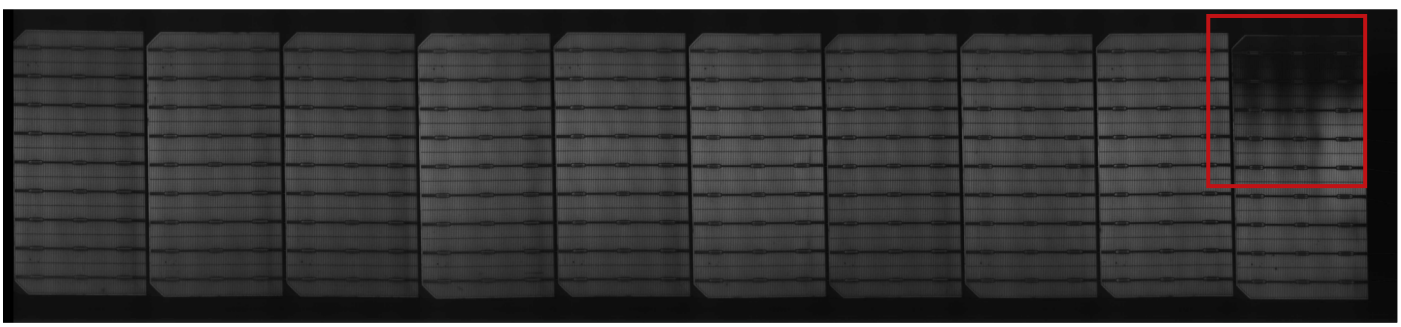
TYPICAL DEFECTS



Cell alignment

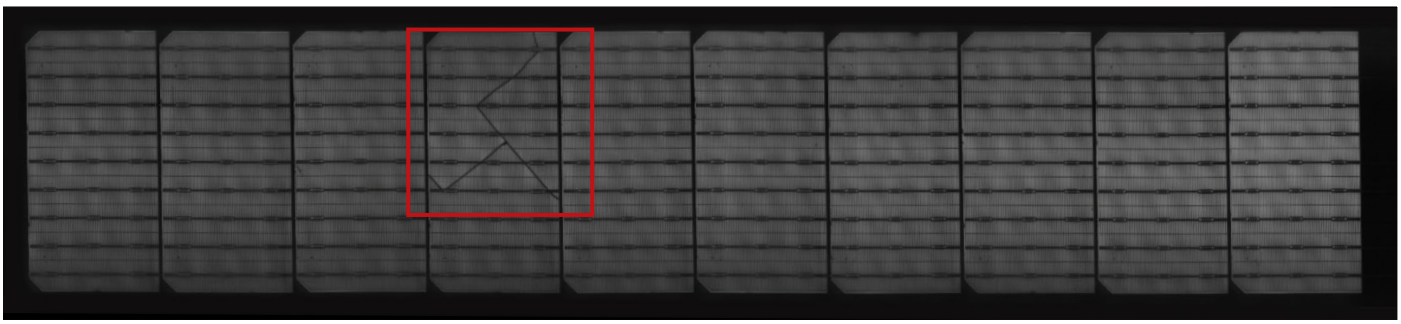


Ribbon failures

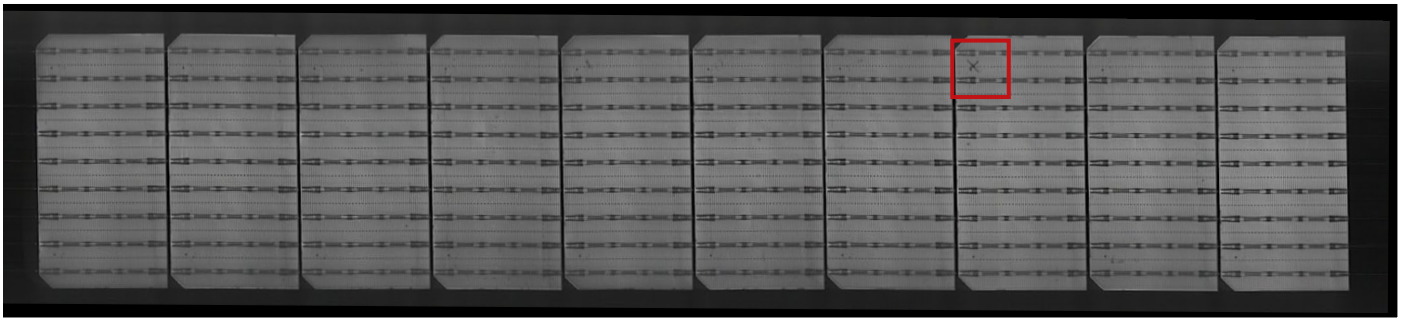


Short circuited cell

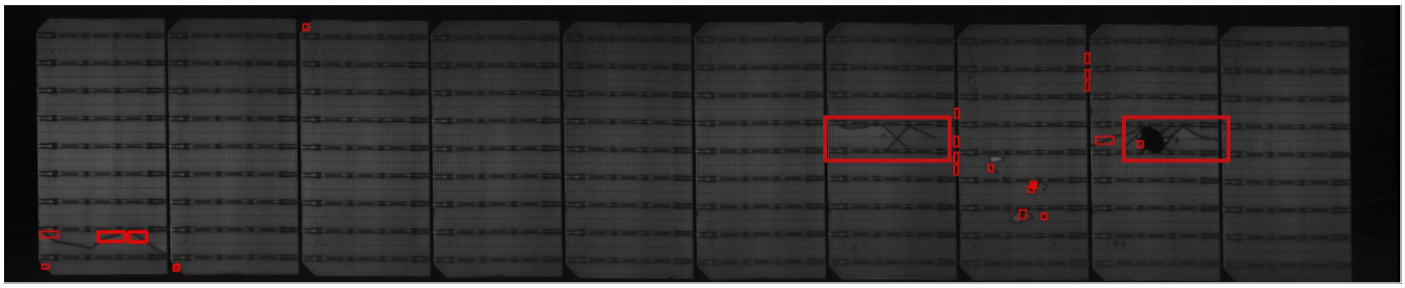
TYPICAL DEFECTS



Crack



Micro-crack



Cracks and broken pieces