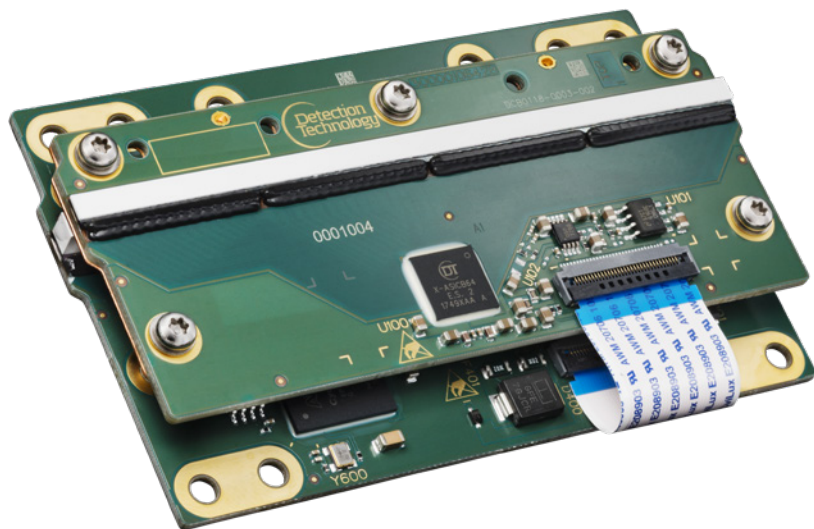# AURORA®

Simplicity meets value –
Security and industrial applications

DT

- **Superior image quality**

- **Fully digitalized data path**

- **The highest integration level and simplified system design**

  - **Less parts means less risks, more robustness, minimized interfaces and signal interferences, and a streamlined supply chain**

- **Modular and easily scalable, plug-and-play platform**

- **Speed up time-to-market**

- **The most cost-effective architecture**

- **Powers all X-ray line-scanning applications**

Aurora is a product family of digital X-ray detector solutions powering all security and a variety of industrial line-scanners. The product family consists of a wide range of stand-alone detectors, and all needed building blocks, like ready-made detector boards, modules and readout electronics, for endto-end systems. Aurora provides superior image quality and a fully digitalized data path in the most robust, modular and easily scalable platform. It is a plug-and-play type solution speeding up time-to-market and delivering total cost savings.

The product family comes with the highest level of integration and a simplified system design. Fewer parts in the bill of materials means minimized risks, a streamlined supply chain, and detector solutions that are mechanically more robust and digitally enhanced.

Aurora is powered by an application-optimized, single-chip ASIC mitigating the impact of external interferences. The ASIC features the lowest noise, and its 127 gain options make the best of signal level and optimize performance of the imaging chain. The ASIC has three operating modes, constant time, continuous and non-continuous, and built-in pixel binning options of x2, x4 and x8. The reliable, moistureprotected micro-BGA package ensures the longevity of this key component and usability in the target applications.

The Aurora product family comes with multiple scintillator options for various energy ranges in single and dual energy imaging applications. The detector family has a backwardcompatible mechanical outline and software interface, making it straightforward to upgrade systems to the next generation. It has a robust Gigabit Ethernet interface, and a software development kit available to support easy integration. Moreover, the design pay attention to the requirements of Industry 4.0, the fourth industrial revolution.

Key features

- Application-optimized, single-chip ASIC
  - Mitigates impact of external interference
  - The lowest noise
  - 127 gain options making the best of signal level and minimizing noise in the imaging chain
  - 3 operational modes: Constant time, continuous and non-continuous
  - Built-inpixel binning options x2, x4 and x8
  - Reliable, moisture-protected micro-BGA package
- Carefully selected scintillator options for various energy ranges in single- and dual- energy configurations
- Backward-compatible mechanical size and software interface
- All system building blocks including ready-made readout electronics and cables
- Resistant to humidity and temperature changes
- Industry 4.0 compatible
- Robust Gigabit Ethernet interface
- SW development kit supporting easy integration

Applications

- Carry-on and checked-in baggage, parcel, mail, cargo, container, vehicle and person screening.
- Product safety and quality inspection, material sorting and process control in a variety of industries.

Simplified system design

mitigates noise sources,
leakage currents and bottlenecks.