5G Smart Factory

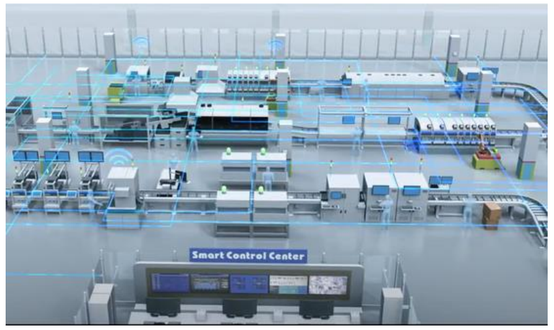
Automated Production Line System Integration Reduce AI False Positives Rate & Increase Production Capacity

Wave-In system integrated 5G private network for Inventec's factory, significantly upgrading their production capabilities. 5G is utilized to send massive data and high-definition images to the cloud, where AI and deep learning computing are used to reduce AOI false positives and human inspection dependency, increasing SMT first-pass yields and production efficiency.

#5G #AOI #AI

#MEC Edge Computing

Want to learn more?
Connect with Wave-In.



CHALLENGES

Driving Industrial 4.0 Upgrade

- Traditional automated optical inspection (AOI) has high false-positive rates, which requires massive human labor for re-inspection.
- Low volume samples and high diversity of material productions make manual inspection challenging and costly.
- WIFI suffers from signal interference, connectivity, and security problems, which is not feasible for industrial upgrade and automated processes.

INNOVATIONS

Achieving 5G + AI for New AOI Processes

- 5G, AI, AOI, and cyber security are integrated to build a field-tested smart factory solution, enabling system integration and industry upgrade of vertical networks.
- 5G + AI-enabled new AOI process, increasing the first pass yield to 85% and saving 50% of manual labor
- Bring added value to services and data with the integration of CT, IT, and OT.

50%

Manual Labor Reduced

85%

First Pass Yield

The world's 1st fully virtualized, ORAN-based, 5G SA Enterprise Network in Taoyuan, Taiwan.

Inventec Microsoft Wave IN