



Industry Notification - Electronics Industry

Delta SMT Line Equipment IIoT Solution

IABG Global Solution Center
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SMT Line Equipment IIoT Solution – Manufacturing Management Platform DIAMMP

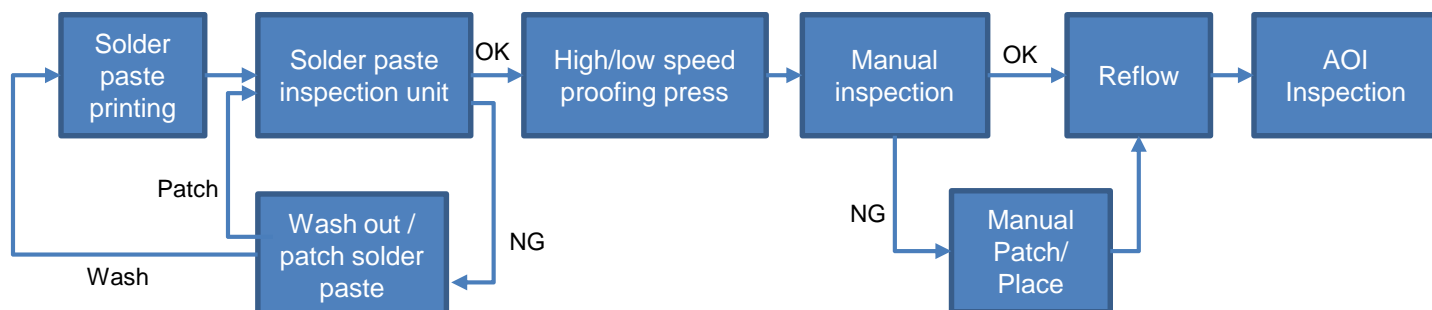
Introduction

Most PCBs assembly includes the processes of pasting and soldering parts onto the boards with solder paste. The production line usually consists of a press, surface mounting machine, reflow oven, and AOI inspection machine. Delta Manufacturing Management Platform DIAMMP connects SMT line equipment and enables the capacity of the production line to be measured by numbers. It can intuitively display key information on the dashboard, reducing time and manual errors. With maintenance and alarm analysis, users will be informed when anomaly occurs and the system can predict when needs maintenance based on the usage count.

Application

The Manufacturing Management Platform DIAMMP is suitable for various automated production lines, such as shoemaking, textile, printing, food processing, electronics, and others. It supports MQTT, WebAPI, and OPC communications and can connect with the IT layer.

Process

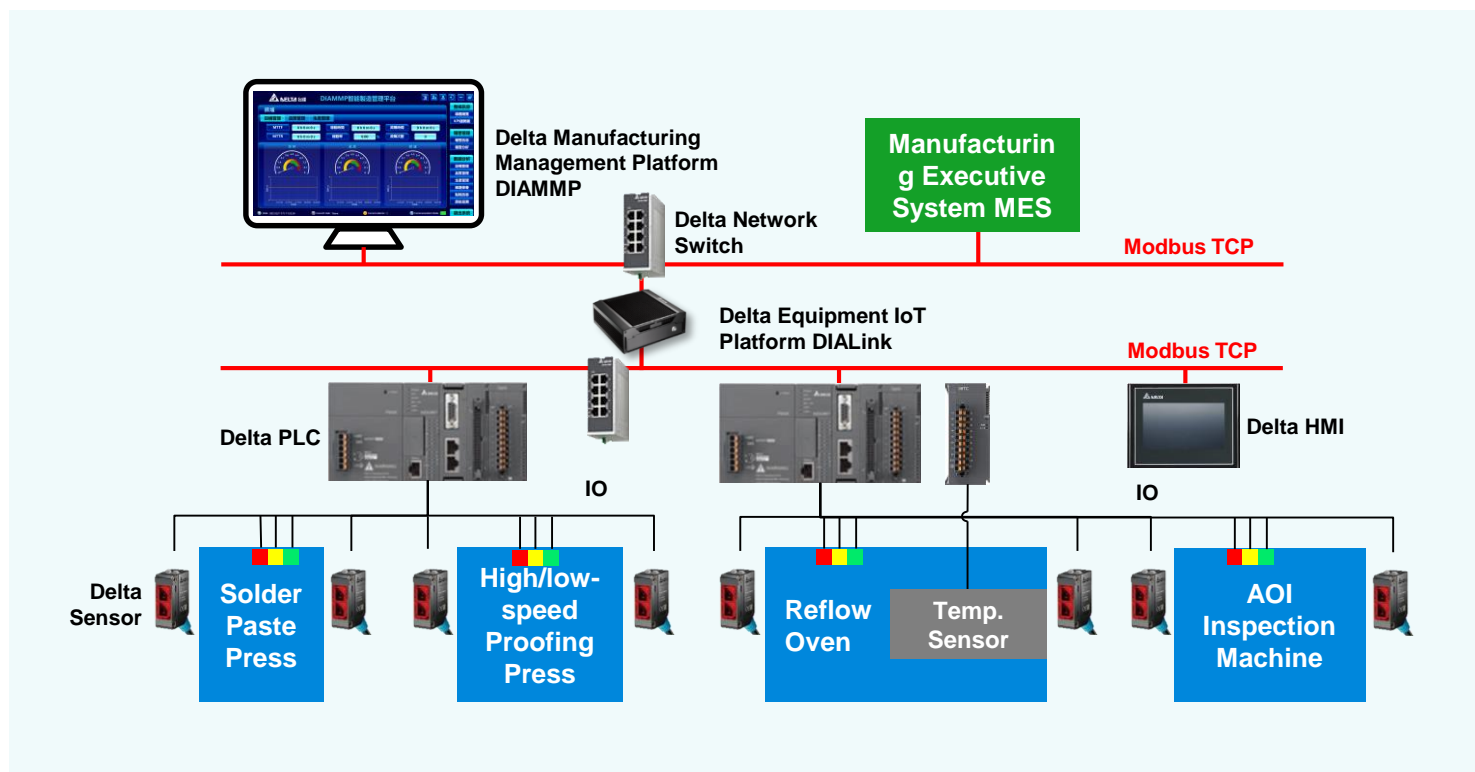


Principle

SMT machines are usually in close communication. Therefore, they need extra sensors combined with Delta Equipment IoT Platform DIALink to collect equipment data. The users can manage the data with the built-in calculation and module functions of the DIAMMP to achieve visualized management.

The system informs production admins via SMS and email and fixes and saves the machine data in real-time to reduce the working time for the engineering team.

Solution Architecture



Features and Advantages

Easily Collects Machine Data for Connecting to the Upper System

- Delta Equipment IoT Platform DIALink can collect parameter data from various new or old machines
- The system supports different communications for easy connection between masters and slaves.

Keeps Abreast of Production for Flexible Deployment

- Delta Manufacturing Management Platform DIAMMP calculates key OEE values: first pass yield, fulfillment rate, utilization rate, line balancing and numerical production line capacity.
- Keeps abreast of production quality and equipment status with production line network.
- Automatically dispatches anomaly messages and arranges maintenance personnel with the SQL Server database.
- Enables flexible machine deployment to improve station utilization.
- Connects with the MES system for data streaming.