

ABB Drives

Electronic Component Information Management Significantly Improves Electronic Design Process

Customer

ABB is a pioneering technology leader that is writing the future of industrial digitalization. ABB's operations are organized into four global divisions, which in turn are made up of specific business units focused on particular industries and product categories. The Drives and Controls business unit, located in Finland, is dedicated to the manufacturing and marketing of low and medium voltage AC and DC drives. These drives provide a means to control the speed and torque of electrical motors.

Challenge

Lack of an Electronic Component Information Management System

ABB Drives and Controls was lacking a component information management system with a centralized database for their Printed Circuit Board Assembly (PCBA) components and the mechanical parts that included PCBAs. Most part information was managed in Excel spreadsheets therefore centralized, electronic processes did not exist. They needed to establish collaboration among their hardware design teams with controlled processes to manage PCBA component Bill of Materials (BOMs) and Engineering Changes/ECOs, track part status (approve, maintain and phase out), gain "where used" visibility to easily identify component issues across multiple products, as well as make it easier to reuse components in new designs.

Goal

Reduce Time Spent Searching for Components

"We needed to implement a system to reduce the amount of time spent searching for components and to allow more time for designing products in order to improve quality and shorten the design cycle," stated Tuomas Kempainen, Design Engineer and Omnify Process Owner for ABB Drives and Controls.

The team at ABB Drives and Controls set out to find a solution that could share component information with their ECAD tool, Mentor Graphics PADS, in order to make it easier to update their component data, keep it accurate, and provide engineers with data to make better component selections without leaving their design environment. They also required that the solution properly manage and track component information for environmental compliance regulations such as Restriction of Hazardous Substances (RoHS), Waste Electrical and Electronic Equipment (WEEE), and material content.

Customer Success

Electronic Design Processes Improved Significantly

"We selected Omnify Empower PLM due to its solid integration with Mentor Graphics PADS, ease of use, and the fact that the system is designed from an electronic design point of view," said Mr. Kempainen.

ABB Drives and Controls now has a centralized component information management system where they can manage New Part Requests (NPRs), product documentation, BOMs, PCB Design Files, ECOs for electronics designs, environmental compliance data, and Vendor Part BOM costing. "Since implementing this system, it is very clear that all of our design processes related to the Omnify electronic component information system have improved significantly," concluded Mr. Kempainen.

Quick Facts:

Company: ABB Drives and Controls

Industry: AC and DC Drives

Key Benefits:

- Easily transitioned from Excel spreadsheets to an electronic component information management system
- Collaboration among hardware design teams
- Track and manage component information for RoHS, WEEE and material content compliance
- Efficient electronic BOM and Engineering Change Management processes
- Reduce time spent searching for components
- Solid integration with **Mentor Graphics PADS**



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