

Create Quality Designs with OrCAD Capture CIS

EK Power Solutions and OrCAD

About EK Power Solutions

EK Power Solutions has since the start in 1978, provided specialist design services in power electronics and printed circuit board layouts. Today they are the leading design house for such services in the Nordic region.

EK Power Solutions are an ISO certified company located in an industrial area just north of Stockholm, and work in their own facilities and with their own equipment. Their focus is custom design solutions within the area of power supply (AC/DC and DC/DC), motor drives, frequency converters, battery charging and PCB layouts.

EK Power Solutions prides itself on collaborating closely with their clients. Clients include automation, telecommunications, power generation, medical technology, railway, marine, automotive and defense sectors. Clients have access to EK Power Solutions engineers collective expertise and a vast CAD library during a project lifecycle. EK Power Solutions executes 60-100 project assignments of various sizes each year. By working in their own premises, they can reuse designs and therefore reduce risks, shorten development time-frames, and minimize time-to-market. From a PCB design perspective validated CAD library and layout footprints, used in serial production, also minimize risks for manufacturing issues.

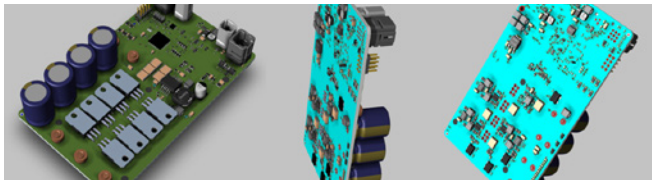


Figure 1: Power design in 3-D from EK Power Solutions

Key Challenges

- Need for tighter integrations with external customers in high-tech product developments
- Need for more integration and ease of use of library data
- Need for better 3D integration

Cadence Solutions

- OrCAD Capture CIS
- PCB Designer Professional

Result

- Improved quality of design work and far better integration with clients

Challenges

The EK Power Solutions design team is a very specialized team of skilled engineers, with an average experience of over 23 years, which also includes six engineers dedicated to solely PCB layout design. Their focus is on in-house projects, but they also perform requested layout work for external clients.

Being a part of many client's high-tech product development, EK Power Solutions faced the challenge of the client's need for tighter integration with their organizations. Many products could have PCB-layouts done in several different CAD systems, making product maintenance a real headache. Most of the layouts that already had been done were far too complicated for the CAD systems used and there was also an urgent need for better 3-D integrations with the mechanical design. Another tough challenge was the need for integration with component databases and PLM systems.

Solution

EK Power Solutions started a comprehensive review of available PCB layout tools that could fulfill their high requirements on features, performance, price and long-term support. The decision was to move to OrCAD® Capture Component Information System (CIS) and OrCAD PCB Designer Professional for their schematic designs, ECAD library and layout work. OrCAD Capture CIS allows every part with its footprint and symbol and meta-data to be housed in a common database on a single location. The company validates the footprint quality by utilizing x-rays technology on manufactured printed circuit board assemblies. When a deficiency is detected, one adjusts the footprint to improve accuracy. All footprints are built according to the IPC standard. Using OrCAD Capture CIS also allows the company to maintain specific customer PCB files in their own preferred CAD system, as well as providing industry-wide support.

As a result, EK Power Solutions has a low failure rate when it comes to the manufacturing step of the process.

“When we are thinking about what is best for the customer in the long-run, the answer is that we need to push the organization forward and align us with the customer’s needs. Using OrCAD Capture CIS helps us to accomplish this and deliver high-quality PCB layouts.”

Vidar Wernøe, CEO, EK Power Solutions

Summary

Using OrCAD Capture CIS and OrCAD PCB Designer Professional has enabled EK Power Solutions to become a more attractive partner to their clients. The high-tech tools ease the development and increase the integrations with other systems, all with the aim of designing high reliable and quality products.

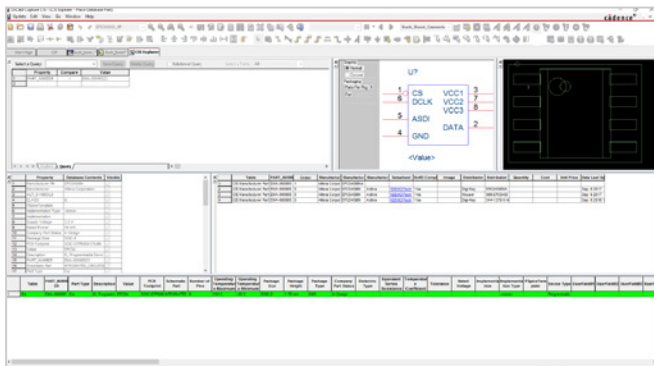


Figure 2: Capture CIS connection to an external database