



Early Supplier Involvement

DESIGN > DEVELOP > DEPLOY

CASE STUDY



The Challenge

A long term customer approached AbelConn, a Celestica company, in an Early Supplier Involvement (EIS) of a manufacturing process that is associated with the F-35 Joint Strike Fighter (JSF) military aircraft. The project required AbelConn to work directly with the customer, and provide real time feedback regarding Design For Manufacturability (DFM) and other critical elements of the manufacturing process; including development of the initial working prototypes.

The project focused on the refresh of a circuit card set that integrates and communicates in the final application. While the customer had warned AbelConn that this would be a challenging project, AbelConn accepted the project with determination and enthusiasm.

ATRENNE'S SOLUTION

AbelConn's flexibility, honesty, and timely communication with the customer were essential to solving the frequent and continuous issues associated with the dynamics of such a project. AbelConn proposed a solution to meet the customer's needs. While this military application had very small, detailed components, AbelConn's engineers provided DFM review of the design while providing feedback of processes to improve manufacturability. Subsequently, AbelConn provided the analysis to mitigate risk on obsolete or long lead time of parts to improve availability, production and

delivery. AbelConn's engineers and program team worked through the First Article Inspection Report (FAIR) with the customer to update the progress. AbelConn worked side by side with the customer and managed the dynamics of the manufacturing process tied to a continuously evolving design schedule by the customer. From the beginning to the end, AbelConn worked with the customer on all aspects of the design and manufacturing process, which saved the customer a tremendous amount of time and, allowed the customer to focus solely on design and functionality. AbelConn's Field Applications Engineer (FAE) stayed involved on the weekly team conference calls, and provided liaison assistance to points of contacts at both AbelConn and the customer site as needed. The customer took these recommendations and incorporated them into the design and manufacturing instructions; including electronic component selection, solder alloy and BGA solder connections.





THE RESULTS

The customer needed a team that understood how to partner with a redesign and an engineering process, which is AbelConn's goal with ESI programs. Overall, the customer was able to have the navigational electronic features integrated and functioning together. The customer found a reliable partner to add to their supply list, a partner that can deliver complex, time-sensitive solutions. The customer continues to work with AbelConn on prototyping and redesign. It is cooperative programs like this that builds trust, integrity, and confidence between customer and supplier which fosters business development and future opportunities.

By incorporating AbelConn's suggestions the customer successfully redesigned, tested and is making steps forward to deploy the multiple circuit cards. By engaging in ESI with AbelConn, the customer benefited from the manufacturing team's ability to work promptly and effectively through many roadblocks and the engineering's team to deliver a process with a high level of efficiency and flexibility.

ABOUT ATRENNE

For more than 50 years, Atrenne Computing Solutions has been designing, developing and deploying rugged electronic packaging, chassis, backplanes, and integrated assemblies.

We are proud to provide customers with fully tested, reliable, electromechanical solutions on-schedule

and with world-class quality. In addition, our design-to-build model and custom engineering capabilities foreground us in the market. Our mission-critical and performance critical, embedded computing platforms are currently deployed in over a hundred programs, operating reliably in the harshest environments.

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