

Rapid Prototyping to meet Time-to-Market

cost optimized customization of embedded solutions

Time-to-market is in today's fast-moving time, a crucial and important decision factor between success or failure. Increasing functionality and high-quality requirements lead to more complex embedded hardware and software. This drives up the development effort (time and money). The fact however is that we get less and less time, money, and personnel. Especially in more complex applications like defense, railways or maritime are prototypes inevitable. To design a final product can be rather costly and most of the time, the first prototype is not the last prototype. NRE costs are not freely available.

What can be done?

Ideally the same electronics and functionality can be tested in the lab in a standard packaging without costly custom housing or specific connectors of a final prototype. MPL has developed and professionalized successfully this approach over the last few years.

History

Since 1985, MPL has been developing and manufacturing embedded systems and solutions in computing and network for tough environments, highest reliability requirements and with long-term availability. Over the time, the application areas have broadened, same electronics but each application area uses or needs different packaging and connectors. An important know-how of MPL is the capability of customization for a standard product to the specific needs and flexibility.

Process

A customer tests our solution (embedded computer board, embedded server, switch, firewall...) from the standard product portfolio to verify the functionality and feasibility. The standard solutions are generally available from stock, therefore a test can start immediately.

During the feasibility check, a customer often sees that additional requests that should be developed. This can be specific connectors, integration of additional features or footprint limitations.

With this procedure, the costs as well as the necessary time can be reduced to a bare minimum. Time to market is being optimized. The customer benefits from the experience of our various products and integration knowledge and gets his own specifications in the standard product. We have many customization examples of a standard product. It can be the functionality of the product or simply the packaging or type of connectors.

With this process, the capability and procedure, the costs and development time, is reduced to a minimum. The first prototype is electrically and functionally equivalent the final product. The customer benefits fully from the broad experience of our products and meets his functional specification already in the lab product.

The MPL Rapid Embedded Prototyping offers a way out of this dilemma (cost and time).

With the functional prototype, the requirements from the user's point of view are clarified and the most critical design decisions are secured. The core task of the prototype is then fulfilled and the actual development can begin in parallel during the verification process. The expression 'rapid' in prototyping plays a special role because different variants can be implemented quickly, and unclear things can be resolved immediately.

For more information do not hesitate to have a look at our home page or get in touch with us.

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