



Increasing performance with embedded software expertise.

CASE STUDY

Challenge

When developing wireless products for the medical, aerospace, or industrial industries, it is important to be able to measure radio frequencies being emitted from the device and determine the products that will be used around or near it. For example, if you are using a connected device in a medical emergency and have minutes to respond, it is vital that the technology does not have to compete with other network frequencies. This customer, a global measurement company, makes spectrum analyzers that help developers test frequencies, so products can be designed accordingly. The customer's current line of analyzers utilizes a Beacon EmbeddedWorks System on Module (SOM). After using this model of SOM for five years, the customer was eager to upgrade their line of devices with newer technology. After concluding that developing a chip down solution in-house would be too costly and require too much time, the customer came back to Logic PD, a Compass Electronics Solutions Company, to help upgrade their device.

Solution

The customer came to us to leverage a SOM with the goal of increasing performance of their spectrum analyzers. The SOM is based on the Zynq® 7000 platform by Xilinx. The Zynq® 7000 platform's high performance application microprocessor would provide the best solution for balancing both power and performance. Beacon electrical, software, and mechanical engineers would work with the customer's team of engineers to help bring the device to market.

Customer Profile

The customer is a global test and measurement company who provides products and solutions for a variety of industries including, computing, home entertainment, and medical diagnostics. The company has a long history of finding world-class solutions that improve the lives of people all over the world.

More Information

Why choose a Beacon EmbeddedWorks SOM?

See what differentiates our SOMs from the rest.

beaconembedded.com/system-on-modules/

About Beacon EmbeddedWorks

Founded in 1960, Beacon EmbeddedWorks is the product innovation and realization company for connected devices in the world's most demanding markets.

Read more at: beaconembedded.com/case-studies/

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Solution Continued

The customer was concerned about the development of the SOM creating a gap in their product offering. To negate this effect, the engineering team created the SOM to be backwards compatible and essentially “plug-in” to the existing board design, therefore eliminating the development and manufacturing gap that would have resulted from an entire system redesign. Capabilities required in the analyzer, like FPGA, are included in the SOM therefore removing the need to keep these features in the baseboard design. By consolidating the device required components onto the SOM, the customer will be able to realize cost savings.

Results

By leveraging this SOM in their product the customer increased overall performance 5X. Working with Beacon EmbeddedWorks allowed the customer to gain access to the technology they wanted at a more affordable cost while minimizing their engineering effort and allowing them to focus on their core competencies. The new backwards compatible SOM will allow for the customer to deliver their product to market with no gap in their offering.

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