AMD FPGAs Help Kinics Make a Positive Impression with Portable Tattoo and Nail Printers

AMD Spartan™-7 FPGAs Enable Kinics to Build Fast, Power-Efficient, and Low-Cost Printing Solutions for a Variety of Applications

PARTNER

KINICS TECHNOLOGY

INDUSTRY

Consumer

CHALLENGES

Kinics was looking for an FPGA solution for its portable printing products that could transfer image data at high speeds, with low power consumption.

SOLUTION

The company chose the AMD Spartan™ 7 FPGA, a cost-effective and power-efficient device offering the performance it needed, with the flexibility to enable future firmware and software upgrades over the air.

RESULTS

The flexible AMD Spartan 7 FPGA has helped Kinics reduce time-to-market, improve print quality and speed, achieve two hours of continuous printing operation on a single charge, and expand its product portfolio.

AMD TECHNOLOGY AT A GLANCE

AMD Spartan 7 FPGA

Kinics Technology is a Korean company that specializes in innovative portable printer products for various applications. The company was founded in 2020 and has launched several successful products, such as photo printers, label printers, nail art printers, and temporary tattoo printers. Kinics aims to provide customers with high-quality, convenient, creative printing solutions.

One of Kinics' newest products is a nail-art printer built for use in nail salons and home/personal use. Users upload a photo via a custom Kinics smartphone app (soon available in both Apple and Google app stores) and can print that image directly onto their fingernail using special inkjet cartridges with skin-safe ink.

CHALLENGE

One of the main challenges that Kinics faced was how to transfer image data from a smartphone app to a small-sized printer at high speeds and with low power consumption. The company needed a reliable and flexible FPGA solution that could support different types of printing modes, as well as enable fast and accurate image processing and printing.

SOLUTION

After evaluating various options, Kinics decided to use the AMD Spartan™ 7 FPGA for its printer products. The AMD Spartan 7 FPGA is a cost-effective and power-efficient device that offers high performance, low latency, and easy programmability. The FPGA allows Kinics to transfer image data at high speeds and implement customized logic and interfaces for each printer product. Users can also easily update printer firmware and software.

RESULT

By using the AMD Spartan 7 FPGA, Kinics was able to:

- Reduce the development time and cost of each printer product by leveraging the common FPGA platform and the technical support from AMD
- Improve image quality and print speed by optimizing the FPGA logic and parameters
- Reduce power consumption, allowing the printer to operate longer on a single battery charge
- Realize the opportunity to grow its customer base with diverse and creative printing solutions offering high performance and usability.

"AMD is the best choice for us," said Byeonghyeon Choi, president of Kinics. "The AMD Spartan 7 delivers highly optimized performance and has been backed by sufficient technical support from initial concept through product development. AMD has also provided us with necessary samples when we needed them, and reasonable lead times during mass production."

Choi said the company is targeting mass production of its nail art and temporary tattoo printers this year and is aiming to sell the products through online retailers.

To see a demo of the nail art product, please visit: https://youtu.be/vclhlqluUCs.

WANT TO LEARN MORE?

About AMD Spartan 7 FPGAs

About Kinics Technology

About Kinics Technology

Based in South Korea, Kinics Technology specializes in innovative portable printer products for various applications. The company was founded in 2020 and has launched several successful products including photo printers, label printers, nail art printers, and temporary tattoo printers. More information at: www.kinics.com.

About AMD

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