Synopsys and austria*micro*systems

DesignWare Hi-Speed USB 2.0 OTG PHY and Controller IP Shortens Project by up to Six Months

Business
Supplier of chips for power management and portable(a)-10(g)-10(e)-1(e)(t)-10(a)-10s8 players

Issets
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- Min-10s810s8(a)-10(g)-1r-10s8
- Achie(a)-1ve(a)-10(g)-1hig(g)-1h yie(a)-1ld
- Save(a)-10(g)-1enginee(g)-1r-10s8 labor

Soleption
Sy10s8psys Detsig(g)-1nWare® Hi-Spee(g)-1d USB 2.0 OTG PHY and Controlle(a)-1r IP

Benefits
- Save(a)-1d t(g)-1hre(a)-1e(a)-10(g)-1to six months t10(a)-10s8(a)-10(g)-1to marke(a)-1t
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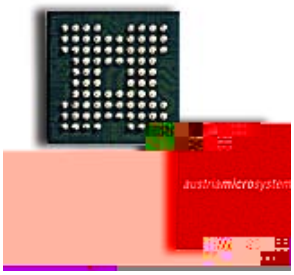
“We were so pleased with our experience that we’re continuing to use Synopsys DesignWare IP in our designs, we definitely recommend DesignWare Hi-Speed USB 2.0 OTG PHY and Controller as well as Synopsys products generally.”

– Mario Manninger, Head of Engineering for the Communications business unit



Synopsys - The Risk-Free Choice for IP

When austria*micro*systems launched the design of the AS3525 in 2004, the engineering team faced a critical make-or-buy decision regarding one of the design’s key blocks, its USB 2.0 PHY and controller. By procuring the block as commercial IP instead of developing it internally, the firm stood to save substantial time to market. Choosing the wrong IP supplier, however, would entail significant risks. For one thing, almost all of the candidate vendors offered just a PHY or just a controller – leaving austria*micro*systems with the risky task of integrating the two blocks. In addition, yield could suffer with the wrong choice of IP.

Fortunately austria*micro*systems found an option that mitigated both risks – the Synopsys DesignWare Hi-Speed USB 2.0 OTG PHY and Controller. This IP includes all required logical, geometric, and physical design files to implement and manufacture USB 2.0 Hi-Speed OTG capability in a system-on-chip (SoC).

“Synopsys was the only IP supplier that provided a complete solution including both a USB 2.0 PHY and controller in a complete package,” says Mario Manninger, Head of Engineering for the Communications business unit. “Furthermore, we had come to trust Synopsys DesignWare Libraries because of the good experiences with them in previous projects. We especially appreciate the design and coding guidelines used in Synopsys DesignWare Libraries and SoC design methodology, which we’re using internally. Synopsys always delivers top quality IP, and we were confident that we’d see that same quality in the DesignWare Hi-Speed USB 2.0 OTG PHY and Controller.”

Synopsys Support Matches its Products in Quality

With excellent support from Synopsys, austria*micro*systems incorporated the IP into the AS3525 design, completed the project on schedule, and met every one of its engineering goals.

“If we’d performed the OTG PHY and controller development ourselves, it would have cost us three to six months time to market and increased our engineering costs,” says Manninger. “Furthermore, since stability in production is vitally important to us, we monitor the yield related to different chip functions. We haven’t seen any yield loss as a result of using the high quality Synopsys DesignWare IP.”

Powering North America’s Leading Satellite Radio Receivers

The AS3525 and its three derivative products have proven to be very successful for austria*micro*systems. Among its many customers is XM Satellite Radio, North America’s number one digital satellite radio provider, which incorporates the chipset into its portable satellite radio receivers.

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