Synopsys and GLOBALFOUNDRIES Collaborate to Develop Industry's First Automotive Grade 1 IP for 22FDX Process

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Synopsys' Portfolio of DesignWare Foundation, Analog, and Interface IP Accelerate ISO 26262 Qualification for ADAS, Powertrain, 5G, and Radar Automotive SoCs

MOUNTAIN VIEW, Calif., and SANTA CLARA, Calif., Feb. 21, 2019 –

Highlights

- Synopsys DesignWare IP for automotive Grade 1 and Grade 2 temperature operation on GLOBALFOUNDRIES 22FDX® process includes Logic Libraries, Embedded Memories, Data Converters, LPDDR4, PCI Express 3.1, USB 2.0/3.1, and MIPI D-PHY IP
- Synopsys' IP solutions implement additional automotive-grade design rules for the 22FDX process to meet reliability and 15-year automotive operation requirements
- Synopsys' IP that supports AEC-Q100 temperature grades and ISO 26262 ASIL Readiness accelerates SoC reliability and functional safety assessments
- Join Synopsys and GLOBALFOUNDRIES at Mobile World Congress in Barcelona, Spain on Feb. 25 for a panel on "Intelligent Connectivity for a Data-Driven Future"

Synopsys, Inc. (Nasdaq:SNPS) and GLOBALFOUNDRIES (GF) today announced a collaboration to develop a portfolio of automotive Grade 1 temperature (-40C to +150C junction) DesignWare® Foundation, Analog, and Interface IP for the GF 22-nm Fully-Depleted Silicon-On-Insulator (22FDX®) process. By providing IP that is designed for high temperature operation on 22FDX, Synopsys enables designers to reduce their design effort and accelerate AEC-Q100 qualification of system-on-chips (SoCs) for automotive applications such as eMobility, 5G connectivity, advanced driver assistance systems (ADAS), and infotainment. The Synopsys DesignWare IP implements additional automotive design rules for the GF 22FDX process to meet stringent reliability and operation requirements. This latest collaboration complements Synopsys' broad portfolio of automotive-grade IP that provides ISO 26262 ASIL B Ready or ASIL D Ready certification, AEC-Q100 testing, and quality management.

"Arbe's ultra-high-resolution radar is leveraging this cutting edge technology that enabled us to create a unique radar solution and provide the missing link for autonomous vehicles and safe driver assistance," said Avi Bauer, vice president of R&D at Arbe. "We need to work with leading companies who can support our technology innovation. GF's 22FDX technology, with Synopsys automotive-grade DesignWare IP, will help us meet automotive reliability and operation requirements and is critical to our success."

"GF's close, collaborative relationships with leading automotive suppliers and ecosystem partners such as Synopsys have enabled advanced process technology solutions for a broad range of driving system applications," said Mark Ireland, vice president of ecosystem partnerships at GF. "The combination of our 22FDX process with Synopsys' DesignWare IP enables our mutual customers to speed the development and certification of their automotive SoCs, while meeting their performance, power, and area targets."

"Synopsys' extensive investment in developing automotive-qualified IP for advanced processes, such as GF's 22FDX, helps designers accelerate their SoC-level qualifications for functional safety, reliability, and automotive quality," said John Koeter, vice president of marketing for IP at Synopsys. "Our close collaboration with GF mitigates risks for designers integrating DesignWare Foundation, Analog, and Interface IP into low-power, high-performance automotive SoCs on the 22FDX process."

GLOBALFOUNDRIES & Synopsys at Mobile World Congress 2019

On February 25, 2019, Synopsys will join the GLOBALFOUNDRIES NEXTech Lab Theater Session at MWC19. A panel discussion, with leading industry experts, including Joachim Kunkel, general manager of the Solutions Group at Synopsys, and Mike Cadigan, senior vice president of global sales, business development, customer and design engineering at GF, will offer insights about the importance of intelligent connectivity, the growth, demands, and innovations it is poised to bring, and its impacts across the semiconductor value chain. For more information, visit: https://www.globalfoundries.com/join-gf-mwc19.

Resources

For more information on Synopsys DesignWare IP for automotive Grade 1 temperature operation on GF's 22FDX process:

- Foundation IP:Logic Libraries, Embedded Memories, One-Time Programmable Non-Volatile Memories (OTP NVM), and Embedded Test and Repair
- Data Converters

- LPDDR4
- PCI Express 3.1
- USB 2.0/3.1
- MIPI

About GLOBALFOUNDRIES

GLOBALFOUNDRIES (GF) is a leading full-service foundry delivering truly differentiated semiconductor technologies for a range of high-growth markets. GF provides a unique combination of design, development, and fabrication services, with a range of innovative IP and feature-rich offerings including FinFET, FDX™, RF and analog/mixed signal. With a manufacturing footprint spanning three continents, GF has the flexibility and agility to meet the dynamic needs of clients across the globe. GF is owned by Mubadala Investment Company. For more information, visit www.globalfoundries.com.

About Synopsys DesignWare IP

Synopsys is a leading provider of high-quality, silicon-proven IP solutions for SoC designs. The broad Synopsys DesignWare IP portfolio includes logic libraries, embedded memories, embedded test, analog IP, wired and wireless interface IP, security IP, embedded processors, and subsystems. To accelerate prototyping, software development and integration of IP into SoCs, Synopsys' IP Accelerated initiative offers IP prototyping kits, IP software development kits and IP subsystems. Synopsys' extensive investment in IP quality, comprehensive technical support and robust IP development methodology enables designers to reduce integration risk and accelerate time-to-market. For more information on Synopsys DesignWare IP, visit http://www.synopsys.com/designware

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 15th largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software security and quality solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest security and quality, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com

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