GLOBALFOUNDRIES Announces Industry's First 300mm SiGe Foundry Technology to Meet Growing Data Center and High-Speed Wireless Demands

November 29, 2018

Industry's most advanced high-speed SiGe technology now available on 300mm manufacturing line for terabit communications and automotive radar applications

Santa Clara, Calif., November 29, 2018 – GLOBALFOUNDRIES today announced its advanced silicon germanium (SiGe) offering, 9HP, is now available for prototyping on the company's 300mm wafer manufacturing platform. The move signifies the strong growth in data center and high-speed wired/wireless applications that can leverage the scale advantages of a 300mm manufacturing footprint. By tapping into GF's 300mm manufacturing expertise, clients can take advantage of increased production efficiency and reproducibility for high-speed applications such as optical networks, 5G millimeter-wave wireless communications and automotive radar.

GF is the industry leader in the manufacturing of high-performance SiGe solutions on its 200mm production line in Burlington, Vermont. The migration of 9HP, a 90nm SiGe process, to 300mm wafers manufactured at GF's Fab 10 facility in East Fishkill, N.Y., continues this leadership and establishes a 300mm foothold for further roadmap development, ensuring continued technology performance enhancements and scaling.

"The increasing complexity and performance demands of high-bandwidth communication systems have created the need for higher performance silicon solutions," said Christine Dunbar, vice president of RF business unit at GF. "GF's 9HP is specifically designed to provide outstanding performance, and in 300mm manufacturing will support our client's requirements for high-speed wired and wireless components that will shape future data communications."

GF's 9HP extends a rich history of high-performance SiGe BiCMOS technologies designed to support the massive growth in extremely high data rates at microwave and millimeter-wave frequencies for the next generation of wireless networks and communications infrastructure, such as terabit-level optical networks, 5G mmWave and satellite communications (SATCOM) and instrumentation and defense systems. The technology offers superior low-current/high-frequency performance with improved heterojunction bipolar transistor (HBT) performance and up to a 35 percent increase in maximum oscillation frequency (Fmax) to 370GHz compared to its predecessors, SiGe 8XP and 8HP.

Client prototyping of 9HP on 300mm at Fab 10 in East Fishkill, N.Y. on multi-project wafers (MPWs) is underway now, with qualified process and design kits scheduled in 2Q 2019.

For more information on GF's SiGe solutions, contact your GLOBALFOUNDRIES sales representative or visit globalfoundries.com.

About GF

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 globalfoundries.com.

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