GLOBALFOUNDRIES Delivering 45nm RF SOI Customer Prototypes for 5G Applications

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Company's advanced 300mm RF SOI offering is ready for volume production

Santa Clara, Calif., January 24, 2018 – GLOBALFOUNDRIES today announced that its 45nm RF SOI (45RFSOI) technology platform has been qualified and is ready for volume production. Several customers are currently engaged for this advanced RF SOI process, which is targeted for 5G millimeter-wave (mmWave) front-end module (FEM) applications, including smartphones and next-generation mmWave beamforming systems in future base stations.

As next-generation systems move to frequencies above 24GHz, higher performance RF silicon solutions are required to exploit the large available bandwidth in the mmWave spectrum. GF's 45RFSOI platform is optimized for beam forming FEMs, with features that improve RF performance through combining high-frequency transistors, high-resistivity silicon-on-insulator (SOI) substrates and ultra-thick copper wiring. Moreover, the SOI technology enables easy integration of power amplifiers, switches, LNAs, phase shifters, up/down converters and VCO/PLLs that lowers cost, size and power compared to competing technologies targeting tomorrow's multi-gigabit-per-second communication systems, including internet broadband satellite, smartphones and 5G infrastructure.

"GF's leadership in RF SOI solutions makes the company a perfect strategic partner for Peregrine's next generation of RF SOI technologies," said Jim Cable, Chairman and CTO of Peregrine Semiconductor. "It enables us to create RF solutions that provide our customers with new levels of product performance, reliability and scalability, and it allows us to push the envelope of integrated RF front-end innovation for evolving mmWave applications and emerging 5G markets."

"To bring 5G into the future, mmWave innovations are needed for allocating more bandwidth to deliver faster, higher-quality video, and multimedia content and services," Bob Donahue, CEO of Anokiwave. "GF's RF SOI technology leadership and 45RFSOI platform enables Anokiwave to develop differentiated solutions designed to operate between the mmWave and sub-6GHz frequency band for high-speed wireless communications and networks."

"GF continues to expand its RF capabilities and portfolio to provide competitive RF SOI advantages and manufacturing excellence that will enable our customers to play a critical role in bringing 5G devices and networks to real-world environments," said Bami Bastani, senior vice president of the RF Business Unit at GF. "Our 45RFSOI is an ideal technology for customers that are looking to deliver the highest- performing mmWave solutions that will handle demanding performance requirements in next-generation mobile and 5G communications."

GF's RF SOI solutions are part of the company's vision to develop and deliver the next wave of 5G technology aimed at enabling connected intelligence for next-generation devices, networks and wired/wireless systems. GF has a successful track record in manufacturing RF SOI solutions at its 300mm production line in East Fishkill, N.Y. Customers can now start optimizing their chip designs to develop differentiated solutions for high performance in the RF front end for 5G and mmWave applications.

For more information on GF's RF SOI solutions, contact your GF sales representative or go to www.globalfoundries.com.

About GF:

GLOBALFOUNDRIES is a leading full-service semiconductor foundry providing a unique combination of design, development, and fabrication services to some of the world's most inspired technology companies. With a global manufacturing footprint spanning three continents, GLOBALFOUNDRIES makes possible the technologies and systems that transform industries and give customers the power to shape their markets. GLOBALFOUNDRIES is owned by Mubadala Investment Company. For more information, visit https://www.globalfoundries.com.

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