GLOBALFOUNDRIES Announces Availability of mmWave and RF/Analog on Leading FDX™ FD-SOI Technology Platform

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Technology solution delivers 'connected intelligence' to next generation high-volume wireless and IoT applications with lower power and significantly reduced cost

Santa Clara, Calif., September 20, 2017 -- GLOBALFOUNDRIES today announced the availability of its radio frequency/analog PDK (22FDX®-rfa) solution for next-generation wireless and IoT chipsets and its mmWave PDK (22FDX®-mmWave) solution for emerging high-volume applications such as 5G, automotive radar, WiGig, SatComm and wireless backhaul.

Both solutions are based on the company's 22nm FD-SOI platform, which provides a combination of both high performance RF and mmWave and high density digital to support integrated single chip system solutions. The technology offers the highest fT and fmax at both low and high current densities for applications that require cutting-edge performance and power efficiency such as LTE-A, NB-IOT and 5G cellular transceivers, GPS WiFi and WiGig combo chips, various IoT and automotive radar applications with integrated eMRAM.

"As customers push the boundaries with smart, connected devices, GF is enabling their progress with additions to the FDX family of differentiated products," said Gregg Bartlett, senior vice president of the CMOS Business Unit at GF. "The rapidly evolving mainstream mobile and IoT markets require innovations in RF and analog. GF's 22FDX-rfa integrates superior RF and analog capabilities that help to deliver differentiated mobile and IoT products with the best balance of power, performance and cost. For the emerging mmWave markets, GF's 22FDX-mmWave offers unparalleled mmWave performance to deliver differentiated phased array beam forming and other mmWave system solutions with lowest power consumption and highest levels of performance and integration."

GF has optimized its 22FDX RF and mmWave offerings to enable integration of high performance antenna switches and power amplifiers for leading-edge connectivity applications such as single system on chip NB IoT and 5G mmWave beamforming phased array systems.

As an alternative to FinFET-based technologies, 22FDX-rfa not only provides the capability to integrate these front end module components, but also offers the benefit of lower thermal noise and comparable self-gain amplification compared to FinFET technologies and self-gains at least 2x compared to bulk CMOS. The intrinsic characteristics of a FD-SOI technology base further reduces the immersion lithography layers by nearly 30 percent compared to FinFET technologies, while achieving better RF performance.

Process design kits for advanced RF and analog, mmWave and embedded non-volatile memory solutions are available now and ready for customer prototype designs. Customers interested in learning more about GF's 22FDX RF and analog solutions, contact your GLOBALFOUNDRIES 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 http://www.globalfoundries.com.

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