Arbe Robotics Selects GLOBALFOUNDRIES for its High-Resolution Imaging Radar to Enable Safety for Autonomous Cars

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Arbe Robotics' proprietarychipset leverages GF's 22FDX® technology to deliver industry's first real-time 4D imaging radar for level 4 and 5 autonomous driving

Santa Clara, Calif., April 26, 2018 – GLOBALFOUNDRIES today announced that Arbe Robotics has selected GF's 22FDX® process for its groundbreaking patented imaging radar that will achieve fully automated system capabilities and enable safer driving experiences for autonomous vehicles.

Arbe Robotics' radar is the first in the world to show real-time 1 degree resolution and provide the required enhancements for sensors and ADAS technologies. Arbe's goal is to build a sensing system with high resolution and zero false alarms, so vehicles will be able to make decisions relying exclusively on the data provided by the radar. Leveraging GF's 22FDX FD-SOI technology, the new chipset is increasing the amount of transmitting and receiving channels on a chip and allowing for better integration to Arbe's proprietary processor.

The rise of autonomous driving is changing the automobile semiconductor market, which is expected to grow to an estimated $54 billion by 2023. This is driven by a need for new technologies that promise to enhance the driving experience, such as 360-degree surround view monitoring, which requires high resolution and long-range capabilities. GF's 22FDX process provides the superior RF performance, power consumption, low noise, and high digital density to increase range and improve resolution for these applications.

As the first company to demonstrate ultra-high-resolution at a wide field of view, Arbe Robotics' radar technology can detect pedestrians and obstacles at a range of 300 meters, in any weather and lighting conditions. The processor creates a full 3D shape of the objects and their velocity, and classifies targets using their radar signature.

"Arbe Robotics' Imaging Radar is optimized for providing a real-time 4D picture of the environment at ultra high resolution," said Kobi Marenko, CEO of Arbe Robotics. "The collaboration with GF is a significant step towards archiving the high-performance level required for autonomous driving safety. With over a decade of automotive industry experience, GF's 22FDX delivers a performance on-demand, energy-efficient solution for our current and future radar technology needs."

"The trend of autonomous driving is progressing rapidly, and with it is the need for high-resolution radar. The future will rely on a mix of real-time maps, advanced navigation software, and live data from vehicle sensors," said Mark Granger, vice president of automotive at GF. "That's why GF is pleased Arbe Robotics has chosen our 22FDX platform, together bringing valuable attributes that support the explosive growth of the autonomous driving industry."

GF's 22FDX platform is a part of the company's AutoPro™ solutions which provides customers with additional access to manufacturing services that support the full range of AEC-Q100 quality grades from Grade 2 to Grade 0 to minimize certification efforts and speed time-to-market.

About Arbe Robotics
Arbe Robotics, founded in 2015, has the vision to make autonomous driving safe, affordable and available – today. The company's 4D Imaging Radar is the first to provide ADAS, level 4, and 5 fully autonomous cars with high-resolution radar that enables them to "see" the environment in any weather and any lighting condition; for long, mid and short ranges in any azimuth, elevation, range, and Doppler.

To learn more visit: http://www.arberobotics.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.

Contact:

Erica McGill
GLOBALFOUNDRIES
(518) 795-5240
erica.mcgill@globalfoundries.com