

News Release

Expertise from Linz makes the world market leader: Infineon delivers its ten millionth automotive radar chip

The Infineon Group has delivered its ten millionth high-frequency radar chip. These components are used in vehicles to measure the distance to other objects, increasing driving safety and comfort. This chip technology was developed in a research center in Linz. Business with radar-based safety systems is one of the automotive industry's leading growth segments.

Linz, Austria, August 21, 2015 – Radar-based driver assistance systems make driving a car more safe and more comfortable everywhere around the world. They prevent accidents actively intervening in driving processes, for example by pedestrian detection, with distance warning systems, automatic emergency braking and by monitoring blind spots. In 2014 almost 50 percent of all 77 GHz radar systems for vehicles worldwide were equipped with chips from Infineon (77 GHz is the standard frequency range for radar applications). According to a current study by market research firm IHS Technology, this makes Infineon the world market leader for 77 GHz radar chips.

Developed in Austria

These radar chips are among the core developments of Danube Integrated Circuit Engineering (DICE) in Linz, a subsidiary of Infineon Technologies Austria AG. The development center for high-frequency technologies, with a staff of approximately 100 employees, was created in 1999 as a spin-off of Johannes Kepler University in Linz. In 2009 the Linz research and development team presented the world's first 77 GHz radar chip in silicon-germanium technology. Work is already underway on the development of the fourth generation of these chips.

"The radar chips developed in Linz continue to make driver assistance systems more exact and more cost-effective," explains Sabine Herlitschka, CEO of Infineon Technologies Austria AG. "These systems are among the fastest growing application areas in the automotive sector. With our research and development expertise and close collaboration with leading system suppliers and automobile

manufacturers, we here in Austria are making an important contribution to a worldwide growth market."

Growth market: Safety systems in the car

Over the last six years the first ten million of these radar chips from Infineon were installed primarily in premium and luxury vehicles. The latest generation of radar chips reduces the cost of these technical systems, which will make them affordable in medium-sized and small cars in the years to come.

The trend towards electronically supported safety systems in the automobile has been confirmed by the market researchers at Strategy Analytics. They expect applications such as distance warning systems and autonomous emergency braking to increase by more than 25% annually over the coming five years. This is due among other things to the rating system of the independent organization Euro NCAP (European New Car Assessment Programme), which evaluates the safety of new vehicles sold in Europe. New cars have to earn the highest five star rating in order to be classified as safe, with radar-based driver assistance systems an essential prerequisite. According to Strategy Analytics, in the year 2020 more than 20 million radars will be used in the distance warning systems of a predicted 105 million new vehicles. This would mean that approximately 20 percent of all new cars worldwide will be equipped with such a system.

How radar technology works in the car

The vehicle's radar system transmits high-frequency electromagnetic waves which are reflected by vehicles or other objects in front of the car. Radar chips send and receive these high-frequency signals and pass them on to the radar control device, which then calculates the exact distance to other vehicles as well as their speed. The system can then give the driver an early warning when necessary and can initiate braking procedures in case of an emergency.

Radars in the 77 GHz range detect vehicles and other pedestrians, cyclists and motorists etc. at distances of up to 250 meters, regardless of how poor visibility is. The car can give an early warning of a dangerous traffic situation and can brake automatically. If the current success of radar-based driver assistance systems continues, it may be possible to make scenarios like the dreaded vacation season rear-end accident in Autobahn traffic jams a thing of the past. These systems are also one of the basic technical prerequisites on the way to the completely autonomous driving of the future.

Additional information

More information on Euro NCAP is available at <http://www.euroncap.com/de>

About Infineon Austria

Infineon Technologies Austria AG is a Group subsidiary of Infineon Technologies AG. The company develops and produces semiconductor solutions that make life easier, safer and greener. Microelectronics from Infineon enable energy-saving consumption in everything from entertainment technologies and household appliances all the way to industrial facilities. They also make basic contributions to increased comfort, safety and sustainability in vehicles and make secure electronic transactions possible in a wide variety of applications.

Infineon Austria is the only Group site outside of Germany to combine expertise in research and development, production and global responsibility for business performance. Headquartered in Villach, Infineon Austria has additional branch offices in Klagenfurt, Graz, Linz and Vienna. With more than 3,300 employees (1,200 of which work in research and development) from over 60 countries, the company achieved revenues of 1.3 billion Euros in fiscal 2014 (ending in September). A research rate of 25 percent of overall revenue makes Infineon Austria the strongest research company in Austria.

More information is available at <http://www.infineon.com/austria>.

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