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REAL3™ time-of-flight image sensor: fourth generation with HVGA resolution for high quality photo effects and more

Munich, Germany – 25 February 2019 – Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) is presenting the fourth generation of its REAL3™ image sensor IRS2771C at Mobile World Congress 2019 in Barcelona, Spain. The 3D Time-of-Flight (ToF) single chip is especially designed to meet the requirements of the mobile consumer device market and, in particular, demand for higher resolutions with small lenses. The wide range of use cases includes secure user authentication like face or hand recognition to unlock the device and confirm payments. In addition, the 3D ToF chip enhances augmented reality, morphing and photo (e.g. bokeh) effects and can be used to scan a room.

Measuring only 4.6 x 5 mm, the image sensor features a 150 k (448 x 336) pixel output that comes close to the HVGA standard resolution. This makes the resolution four times higher than that of most ToF solutions on the market today. The pixel array is highly sensitive to 940 nm infrared light and provides unbeaten outdoor performance. This is enabled by the patented Suppression of Background Illumination (SBI) circuitry in every pixel. Due to its high level of integration, each IRS2771C image sensor is essentially a miniature single-chip ToF camera. This dramatically reduces the overall bill of materials and the actual size of the camera module without compromising on performance and keeping power consumption to a minimum.

Market-leading robustness and energy efficiency

“Its robustness against ambient light and its energy efficiency make this imager unparalleled in the market,” says Philipp von Schierstaedt, Vice President and responsible for Infineon’s RF & Sensors business. “With the new image sensor generation, Infineon can further extend its leading position. Every device manufacturer can increase the value of their devices with the new REAL3 chip, while customizing the design and speeding up time to market”.

Through its long-standing partnership with pmdtechnologies, Infineon has gained profound expertise in algorithms for processed 3D point clouds (a set of data points in space produced by 3D scanning). Reaching beyond Infineon's hardware expertise, customers can thus expect a comprehensive offering including tooling and software. "The fruitful collaboration has proven that best-in-class 3D ToF systems are only achievable by designing the depth sensing system from scratch – from cutting edge ToF pixel, imager and module design to advanced signal processing," said Bernd Buxbaum, CEO of pmdtechnologies. "Our customers leverage pmd's vast experience from 15 years in developing and manufacturing best-in-class 3D ToF products."

Availability

Developed in Graz, Dresden and Siegen, Infineon's new 3D image sensor chip bundles Infineon's expertise at its German and Austria sites. Samples of the chip will be available in March and volume production is scheduled to start in Q4 2019. More information about Infineon's 3D image sensor family and the company's demonstrations at Mobile World Congress 2019 is available at www.infineon.com/real3 and at www.infineon.com/MWC.

About Infineon

Infineon Technologies AG is a world leader in semiconductor solutions that make life easier, safer and greener. Microelectronics from Infineon is the key to a better future. In the 2018 fiscal year (ending 30 September), the Company reported sales of €7.6 billion with about 40,100 employees worldwide. Infineon is listed on the Frankfurt Stock Exchange (ticker symbol: IFX) and in the USA on the over-the-counter market OTCQX International Premier (ticker symbol: IFNNY).

Further information about REAL3™ is available at www.infineon.com/real3

This press release is available online at www.infineon.com/presse

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About pmdtechnologies

pmdtechnologies ag, a fabless IC company headquartered in Siegen/Germany with subsidiaries in the USA, China and Korea, is the worldwide leading 3D Time-of-Flight CMOS-based digital imaging technology supplier. Started up in 2002, the company owns over 350 worldwide patents concerning pmd-based applications, the pmd measurement principle and its realization. Addressed markets for pmd's 3D sensors are industrial automation, automotive and the wide field of consumer applications like smartphones. Further information is available at pmdtec.com.

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