



## Market News

### **Sensor fusion: radar and MEMS microphones with audio processor for unmatched voice-recognition**

Munich, Germany – February 28, 2017 – Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) and XMOS Ltd. partner to deliver a new building block for voice recognition. It features a combination of radar and silicon microphone sensors from Infineon and audio processor from XMOS. The devices provide far field voice capture by audio beamforming combined with radar target presence detection. Together, they guarantee for optimal sound recognition and flawless execution for digital voice assistance across a broad range of voice-controlled devices. Target applications are especially smart home as well as smart TV and set top box, secure keyless entry systems, and other voice-operated consumer devices.

The performance of current MEMS microphone limits the effectiveness of systems: when multiple persons are speaking, the veracity and location of the voice source cannot be precisely identified and separated from inanimate object noise. Infineon's 60 GHz 2Tx/4Rx radar IC with accompanying antenna and the 70dB SNR microphone helps to overcome these impediments. The microphones are based on the dual backplate MEMS technology from Infineon and are well suited for far field voice capturing and beamforming. In addition, improving the SNR of the microphone will further enhance the performance.

The XMOS audio processor analyses the signal data from an array of Infineon's digital microphones, adjusting the angular and distance data from each microphone to produce a beam at an angle identified by the radar data. A lit LED indicates presence detection and where sound is taken from.

The combination of an Infineon radar and the XMOS beamformer allows the microphone to target a specific object precisely, even with the object moving and indistinctive noise. The microphone delivers a superior user experience compared to existing voice-controlled systems, with clear understanding of commands and flawless execution that prevents unwanted activations of devices. More information is available at [www.infineon.com/audiobeamforming](http://www.infineon.com/audiobeamforming).

For the Trade Press: INFPM201702.036e

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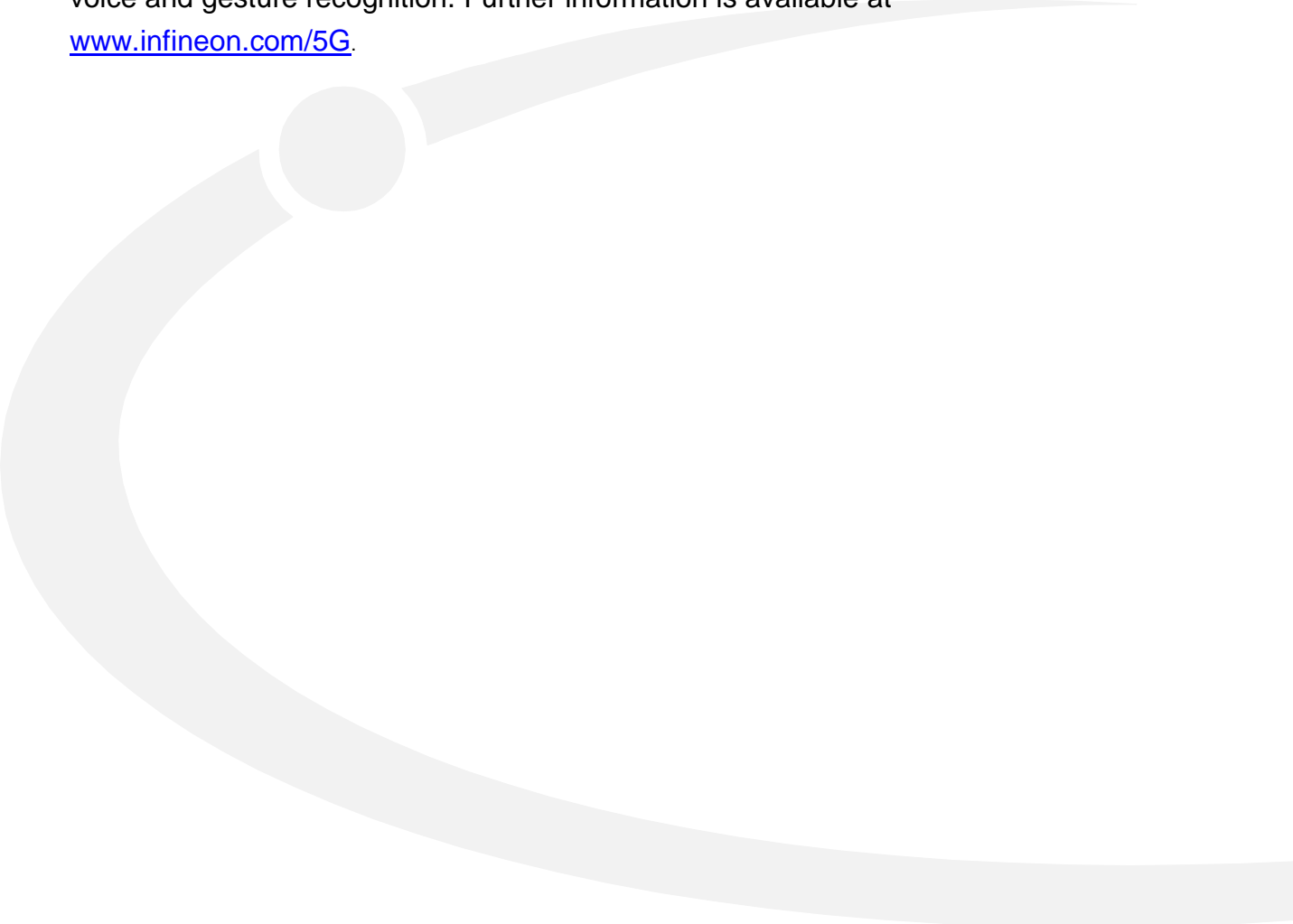
**Name:**  
**Fabian Schiffer**  
**Sian Cummings**  
**Chi Kang David Ong**  
**Yoko Sasaki**  
**EU/APAC/USA/CAN**

**Phone:**  
+49 89 234 25869  
+1 310 252 7148  
+65 6876 3070  
+81 3 5745 7340  
+49 89 234 26655

**Email:**  
fabian.schiffer@infineon.com  
sian.cummings@infineon.com  
david.ong@infineon.com  
yoko.sasaki@infineon.com  
investor.relations@infineon.com

**Inspiring mobile business – Powering the future the secure way!**

At [Mobile World Congress 2017](#) (hall 6, booth 6C41), Infineon will demonstrate semiconductor solutions for secured and energy efficient communication in the connected world. Highlights include intelligent street lamps for a smart traffic infrastructure, security gateways to protect connected devices in the smart home as well as new concepts for facilitating the interaction of humans and machines by using voice and gesture recognition. Further information is available at [www.infineon.com/5G](http://www.infineon.com/5G).



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**Japan**  
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**Name:**  
**Monika Sonntag**  
**Mitch Ahiers**  
**Chi Kang David Ong**  
**Yoko Sasaki**  
**EU/APAC/USA/CAN**

**Phone:**  
+49 89 234 24497  
+1 408 503 2791  
+65 6876 3070  
+81 3 5745 7340  
+49 89 234 26655

**Email:**  
monika.sonntag@infineon.com  
mitch.ahiers@infineon.com  
david.ong@infineon.com  
yoko.sasaki@infineon.com  
investor.relations@infineon.com