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Reitheim-Weilheim, 15.March.2019

Comment to „Unlicensed Use of 6 GHz band“

Marquardt GmbH is a tier1 in automotive applications. Marquardt has presently 12.000 employees worldwide. With a turnover of 1,2 billion Euro in 2018.

Marquardt manufacturers UWB products operating under the UWB rules §15.519.

These products are used for automotive vehicle secure access and start. It will first time allow 100% secure car access against so called “relay attack” of keyless products.

Marquardt has orders of two german premium brand car manufacturers for UWB car access and start application. For one car manufacturer the key fob and car antenna development is nearly finished. It is now in qualification and homologation phase. Project start was May 2017. Start of production is January 2020.

The cars are sold in more than 200 countries worldwide.

Till 2027 12 million systems are ordered. The turnover is about 200 million Euro. Marquardt has invested about 90 man-years in development and about 20 million Euro in production and development equipment.

The order of the second car supplier is presently in development phase. Start of production is May 2021. For this project we are nominated to deliver key fobs for secure car access and start. Also these will include UWB technology to be immune against “relay attacks”. In addition UWB technology is opening the possibility to allow entry with smartphone.

The delivery of 14 million key fobs is ordered till 2029. Turnover of 150 million Euro. Marquardt has and will invest about 50 man-years in this development and about 13 million Euro in production and development equipment.

Further orders for the UWB technology are expected.

It is very important for us and our customers that UWB can continue to operate unhindered. We are very concerned by the proposal in the NPRM and the potential for interference as shown in the coexistence studies submitted by Decawave and the UWB Alliance.

We agree with those organisations and other commenters that, should this go ahead, unlicensed broadband access systems should be limited in duty cycle and transmit power. We urge the FCC to award only the least amount of spectrum required, at as low a frequency as possible.

Sincerely

Steffen Lehr, TDAD1-RI, Product Development Automotive