

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Petition for Rulemaking: Amendment of)	CG RM-11844
Rules Governing Ultra-Wideband Devices)	
and Systems)	

To: The Chief
Office of Engineering and Technology
Via: ECFS

Comments of InnoTec21 GmbH

On July 18, 2019 the Federal Communications Commission (FCC) in its Public Notice published the filing of the Petition for Rulemakings RM 11844, submitted by the petitioner Robert Bosch LLC (Bosch), in which Bosch requests the FCC initiating a review of the Part 15, Subpart F regulations governing Ultra-Wideband (UWB) devices and systems.

InnoTec21 GmbH (IT21), a global engineering and marketing service company, by counsel and pursuant to Section 1.405 of the Commission's Rules (47 C.F.R. § 1.405), would like to express strong support for such a review and revision of the UWB rules. IT21 therefore hereby respectfully submits comments and its statement of strong support for the Petition CG RM-11844.

The restrictions of part 15, subpart F are characterized by the FCC itself being "ultra-conservative" in its initial Report and Order establishing the UWB rules, issued in 2002. FCC also stated therein its intention to reconsider the restrictions later on, based upon experience gained with UWB then so far. UWB application has proven now for a long time since 2002 that it is causing no harmful interference to any authorized radio service. FCC has acknowledged that by issuing numerous waivers during that time enabling innovative UWB applications case-by-case by lowering

subpart F restrictions considering the extremely low interference potential of UWB radio. The release of waivers is an alternative way compared to updating the initial conservative rules and definitions governing the UWB operation. Waiver procedure requires additional efforts in addition to significant increase of time to market for new products. IT21 respectfully requests FCC to update and relax rules governing UWB operation based on the past UWB application experience in order to reduce the need for waiver procedure to a minimum.

Interference mitigation (IM) factors bear the potential to enable co-existence with authorized radio services while at the same time enabling numerous innovative UWB applications with relaxed limitations on UWB technology application. IM are not yet taken into account in the UWB rules. Thus the flexibility offered by modern UWB systems to implement IM techniques and specific scenario determined IM factors are not taken into account. IT21 respectfully proposes to consider for an update of UWB rules an increase of the permitted maximum UWB transmit spectral power density as well as a removal of the outdoor UWB application restrictions. Taking into account the IM factors can ensure the continuation of the so far proven extreme low probability of harmful interference from UWB systems to authorized radio services while increasing the spectrum utilization at the same time. It is proposed respectfully further by IT21, that no other unlicensed wideband radio system may be granted to operate with higher power spectral limits within the frequency bands permitted for UWB operation unless proven co-existence technology has been implemented in such other unlicensed wideband radio system ensuring fair spectrum access and enabling co-existing operation of such systems and UWB systems.

InnoTec21 GmbH supports the petition CG RM-11844 and respectfully requests the FCC to initiate rulemaking to revise and update the rules governing UWB operation.

Respectfully submitted,
InnoTec21 GmbH

By:_____

Dr. Sven Zeisberg