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Ministry of Industry & Information Technology (MIIT)  
Of the People's Republic of China  
State Radio Regulation of China (SRRC)

Filing Submitted via email to: [xhhz@miit.gov.cn](mailto:xhhz@miit.gov.cn)

Regarding: 6 to 9 GHz Spectrum Allocation - Ultra-Wide Band (UWB)

**There have been no reports of interference from UWB in the past 20 years.**

While ultra-wideband is a non-protected technology, it is also a non-interfering technology. This was ensured by restricting UWB emission limits to the Class B emission limits from 15.109, which are already below the spurious emission limits for other systems. As a result, there have been no reports of interference from UWB transmitters in the past twenty years, anywhere in the world, in all frequency ranges, including those between 3 and 5 GHz where UWB systems have been operating alongside mobile telephony systems.

In accordance with this and based on the sharing and compatibility studies documented in ECC Report 327, European regulators have recently approved a 10 dB power increase to -31 dBm/MHz for indoor UWB systems operating between 6.0 and 8.5 GHz.

The UWB industry has developed many techniques to mitigate interference risk and has demonstrated through performance that these techniques prevent harmful interference to other services. If there are specific areas of concern, the industry would like to collaborate with the affected incumbents to find suitable solutions.

Protection of other spectrum users does not require a reduction of the spectrum available to UWB.

**UWB Alliance recommends keeping the current 6-9 GHz spectrum allocation.**

International harmonisation of the UWB rules is an important aim of the UWB industry and one of the reasons for founding the UWB Alliance. Globally, the 6 to 9 GHz spectrum is becoming the preferred operating range for many UWB applications, in particular those aimed at consumers.

As a non-protected technology, UWB often uses different channels within the 6 to 9 GHz spectrum to avoid local interference. The 6 GHz range is particularly important for popular applications such as the vehicular passive keyless entry systems. In addition, also other industry consortia specifications start from the

so-called IEEE HRP UWB channel 5, centred around 6.5 GHz. The combination of the requirement to have at least 500 MHz bandwidth transmissions and practical roll-offs imply that a wide spectrum allocation is required. The proposed restriction goes against this. In particular, only IEEE HRP UWB channel 9 from the IEEE 802.15.4 standard fully fits within the proposed reduced frequency range.

Based on these considerations, UWB Alliance recommends keeping the current 6 – 9 GHz allocation.

Respectfully Submitted,

UWB Alliance

The Ultra Wide Band (UWB) Alliance is a global not-for-profit organization that works to collectively establish ultra-wideband (UWB) technology as an open-standards industry. A coalition made up of vendors that either design, manufacture, or sell products that use ultra-wideband technology, the UWB Alliance aims to promote and protect the current allocation of bandwidth as well as promote the continuing globalization of the technology. As part of our mission, we advocate UWB technology and use cases to promote verticals showing the value of UWB for IoT and Industry 4.0 and to build a global ecosystem across the complete UWB value chain, from the silicon to the service.