

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Amendment of Rules Governing)	RM-11844
Ultra-Wideband Devices and Systems)	
)	

To: Chief, Office of Engineering
and Technology

COMMENTS OF PIPER NETWORKS, INC.

Piper Networks, Inc. (“Piper”), by counsel, hereby comments on the Petition for Rule Making (“Petition”) filed by Robert Bosch LLC (“Bosch”) in the above-captioned proceeding.¹ Bosch submitted the Petition requesting a comprehensive review of the Commission’s regulations governing ultra-wideband (“UWB”) devices and systems. Piper supports the initiation of a rule making to review the Part 15 regulations given the increased prevalence of UWB devices and innovative use cases and applications enabled by UWB technologies. The Commission should update the rules applicable to UWB devices to provide more operational flexibility to UWB operators while ensuring harmony and non-interference with existing incumbent operators in shared bands.

Based in San Diego, CA, Piper is a company that develops proximity solutions for transit and airport authorities, warehouses and manufacturing facilities, smart cities, healthcare, and other enterprises needing real-time location awareness and data capturing. Piper is in the process of developing UWB technology that could be cheaper, more efficient, more effective, and safer than

¹ See *In the Matter of Amendment of Rules Governing Ultra-Wideband Devices and Systems*, Petition for Rule Making of Robert Bosch LLC, RM-11844 (filed June 18, 2019).

current non-UWB technology used for train location services on subways and large rail systems. Initial testing of Piper's technology confirms there is little to no possibility UWB technology will interfere with incumbent systems if operating at the relatively low power levels required by current UWB regulations. As Bosch points out, no documented evidence of interference from a UWB device to a licensed radio service exists at this time.² However, developers of UWB technology frequently are forced to seek a waiver of the current UWB regulations, unnecessarily increasing administrative burdens and delaying the implementation and deployment of UWB technologies.

Bosch lists a number of Commission rule sections that a rule making should address among the current UWB regulations. Piper specifically supports review of regulations requiring that UWB devices remain indoors, only be hand-held, or not installed on fixed infrastructure outdoors.³ Additionally, the Commission's rules should continue to allow for use on certain mobile applications such as trains, ships, and construction vehicles.⁴ Finally, Piper suggests any future rule making be informed by the review of current UWB definitions and rules applicable in Europe, specifically those approved by the Electronic Communications Committee of the European Conference of Postal and Telecommunications Administrations and the European Telecommunications Standards Institute. Piper respectfully suggests incorporation of these rules and standards would be the best way to harmonize UWB technology worldwide.⁵

For the foregoing reasons, Piper supports Bosch's Petition to review the regulations applicable to UWB devices and technologies. Piper looks forward to working collaboratively with

² See Petition at ¶ 6.

³ See 47 C.F.R. § 15.519(a); 47 C.F.R § 15.250(c)-(d).

⁴ See Petition at ¶ 52; 47 C.F.R. § 15.521.

⁵ *Id.* at ¶¶ 4 & 23.

the Commission and other key stakeholders to update the current regulatory regime to facilitate the continued development and deployment of UWB technologies.

Respectfully submitted,

PIPER NETWORKS, INC.

/s/ Robert Hanczor

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