EXPERIMENTAL LICENSE MODIFICATION APPLICATION

Panasonic Avionics Corporation ("Panasonic") respectfully seeks to modify its existing two-year experimental license, Call Sign WH2XCJ,[1] by removing the 776-794 MHz band and replacing it with the 768-788 MHz band to support its ongoing transmit portable device ("T-PED") test operations at airfields throughout the United States. Panasonic also requests an extension of the *T-PED Experimental License* for an additional two-year term.

I. Background

Panasonic was granted an experimental license in 2014 to conduct ground testing in support of its eXConnect system, a satellite-based, in-flight connectivity communications system that enables passenger to use T-PEDs (e.g., laptop computers and smartphones) while airborne.[2] Since the original grant of the *T-PED Experimental License,* Panasonic has been granted several modifications to add new airfield test locations and frequency bands for T-PED testing operations, including authorizations to conduct testing in Code Division Multiple Access ("CDMA") frequencies from 776-794 MHz.

In April 2018, the First Responder Network Authority ("FirstNet") contacted Panasonic regarding use of the 776-794 MHz band, which overlaps with the 788-798 MHz band ("Band 14") used by FirstNet.[3] FirstNet requested that Panasonic commence frequency coordination to ensure that T-PED testing will not cause interference to FirstNet's operations in the subject band. In response to FirstNet's outreach, Panasonic evaluated the frequencies authorized in its experimental license and concluded that it can effectively conduct CDMA T-PED testing outside of Band 14 spectrum. Panasonic has communicated its conclusion to FirstNet, and the parties have agreed that eliminating frequency overlap addresses its concerns regarding the potential for interference. Thus, this experimental modification application seeks to remove the 776-794 MHz band from the *T-PED Experimental License* and replace it with the 768-788 MHz band.

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[1] *See* Panasonic Avionics Corporation, File No. 0022-EX-CM-2017, Call Sign WH2XCJ (granted May 11, 2017) ("*T-PED Experimental License*").

[2] T-PED testing is conducted in compliance with FAA aircraft equipment certification requirements. For a detailed description of T-PED testing, *see* File No. 0117-EX-PL-2014, Call Sign WH2XCJ.

[3] FirstNet is an independent authority within the U.S. Department of Commerce authorized by Congress to develop, build, and operate the Nationwide Public Safety Broadband Network ("NPSBN") which will be used by public safety entities throughout the United States. The Commission has issued a single, nationwide license to FirstNet to operate the NPSBN.

II. Changes to Authorized Frequencies & License Renewal

As noted, the frequency range currently in the Panasonic experimental license for CDMA T-PED testing is from 776-794 MHz, which overlaps the NPSBN Band 14. In order to ensure that the NPSBN incurs no interference or disruption of service in this band, Panasonic seeks to remove the 776-794 MHz frequency band from the experimental license and replace it with the 768-788 MHz band to permit ongoing CDMA T-PED testing at existing airfield test location throughout the United States. This modification will enable Panasonic to test on a one megahertz carrier at 785 MHz – entirely outside the FirstNet band – with substantial guard bands to protect Band 14 from any potential interference. Panasonic seeks to implement this change at 21 existing airfield test locations identified in the modification FCC Form 442.

Annex 2, attached, lists each of the frequency bands that Panasonic is authorized to conduct T-PED testing under Call Sign WH2XCJ, and indicates the change to the CDMA T-PED testing band proposed in this modification application.

Panasonic also respectfully requests that the Commission grant an extension of the *T-PED Experimental License*, which is due to expire in August 1, 2018, for an additional two-year license term. Panasonic does not seek any other changes to its previously authorized operations and this modification application does not make any changes to the T-PED test sites or the technical characteristics of authorized T-PED testing.

III. Public Interest

Grant of the requested modification will serve the public interest by allowing Panasonic to satisfy FAA certification requirements and to continue development of its innovative eXConnect system while also protecting spectrum resources required by FirstNet and first responders. By eliminating frequency overlap, Panasonic will ensure that its experimental operations raise no concerns regarding potential interference. Of course, Panasonic's operations will be conducted on an unprotected, non-interference basis and will otherwise comply with Part 5 of the FCC Rules.

IV. Conclusion

Based on the foregoing, Panasonic respectfully requests that the Commission grant this application to modify its *T-PED Experimental License*, Call Sign WH2XCJ, by removing the 776-794 MHz band, adding the 768-788 MHz band, and extending the license term for an additional two years.