NARRATIVE STATEMENT

By this application, and pursuant to Section 5.71(a)(2) of the Federal Communications Commission ("FCC") Rules, 47 C.F.R. § 5.71(a)(2), Starry Spectrum LLC ("Starry") respectfully seeks renewal of the experimental authority granted by the FCC under call sign WI2XEB. This license allows Starry: (a) to evaluate the functionality, reliability and user acceptability of equipment and technologies it is designing, developing, and manufacturing to support new and innovative point-to-point and point-to-multipoint communications capabilities and services; and (b) to conduct market studies on a limited basis across multiple geographies. In compliance with the conditions of that license, Starry filed experimental reports detailing the results of its tests to date with the FCC.[1]

As described in its experimental reports, Starry is developing a unique technology stack for last-mile fixed broadband in licensed millimeter wave spectrum using a combination of standards-based radios and its own technology for frequency upconversion. It is iteratively designing and deploying this equipment while it improves capacity and functionality, and reducing costs. Both the technology development and unit economic optimization are fundamental to Starry's ability to build a new competitive business that can offer meaningful new access and choice to consumers.

Starry continues to develop this technology and is testing its next-generation base stations and terminals. It is also testing deployments with greater density of base stations and terminals and characterizing the radio frequency environment with these denser deployments, while also testing direct-to-consumer service and small-and medium-sized business service. Further, it has shifted its product assembly and manufacturing to the U.S., and will build a tight iterative feedback loop between its engineering team, deployment team, and assembly team as it continues to build and improve its technology. Finally, it intends to begin testing a software-defined radio implementation that would incorporate additional spectrum bands and 5G NR radios. Parts of this technology, assembly, radio frequency analysis, and business planning are in the early stages.

Granting the application will further allow Starry to innovate and improve its technology, continue its research and development of new technology and deployment models for this band, generate more business and technical data on its existing operations, experiment in markets with different characteristics, and test different business models.

Specifically, a continuation of Starry's experimental market trial authority will permit the company to test four significant innovations. First, it will allow it to test the RF environment in a more congested deployment, with an increase in the number of base stations and user terminals. Second, it will allow it to test capacity demands on single sites and on a market level as it increases the number of user terminals through deployments on smaller multi-family buildings and single-family homes. Third, it will allow it to continue to test its

[1] *See e.g.*, Fifth Experimental Report, ELS File No. 0570-EX-CR-2019 (filed Nov. 22, 2021).

direct-to-consumer service and test small- and medium-sized business service. And fourth, it will allow it to test and characterize its network and service across multiple geographies and with varying atmospheric profiles.

This continued experimentation is important for the development of Starry's next-generation equipment to provide gigabit service over larger geographic areas, and to customer premises of all sizes. In order to characterize network operations and RF performance in a denser environment, including using up to 16x16 MIMO; to test capacity limits up to and above 500 customer terminals per base station; and to test additional customer density and business models, Starry is seeking to increase the number of authorized base stations to 1,100 and to increase the number of terminals to 65,000.

Starry understands and acknowledges that any operation under its license would be subject to the same conditions imposed upon its current experimental operations and that the FCC may specify additional conditions it deems appropriate.[2] For example, and as discussed in greater detail below, Starry will advise participants that: (a) the operations are being conducted under an experimental authority issued to Starry, (b) the company is responsible for the experimental activities, (c) all operations are being conducted on a non-interference basis, and (d) after the test is completed, Starry will retrieve and recover all devices that do not comply with FCC regulations.

[2] With the conclusion of Auction 103 for licenses in the 37.6-38.6 GHz band ("Upper 37 GHz Band"), Starry has ceased all prior operations on the Upper 37 GHz Band as authorized under this license in any location in which a license has been granted.

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