

**Sunesys Enterprise LLC  
Attachment to Application for License WI2XQK  
File No. 0184-EX-CN-2017**

**NARRATIVE STATEMENT**

Pursuant to Section 5.61 of the Commission's rules, 47 C.F.R. §5.61 (2017), Sunesys Enterprise LLC ("Sunesys") hereby respectfully requests experimental authorization beginning August 21, 2017 to test prototype equipment in the 3.5 GHz band.

In support of this request, the following is shown:

- 1) Applicant's Name, Address, and FCC Registration Number ("FRN"):

Sunesys Enterprise LLC  
1500 Corporate Drive  
Canonsburgh, PA 15312  
FRN: 0025286014

- 2) Description of Operation and Purpose of Test:

This modified experimental license will allow Sunesys to expand its testing to additional locations around the Pittsburgh area. As was true for the initial experimental license, Sunesys will be investigating the coverage area that can be served when deploying 3.5 GHz equipment in different outdoor environments. This information will allow the company to determine the site density required to deploy a network in the 3.5 GHz band. The testing will consist of transmitters installed at different heights with different antenna types along with the use of drive tests to capture signal strength in different environments. Sunesys will be using existing towers and small cell infrastructure to perform the testing. Following coverage testing, Sunesys will deploy a small cell network, primarily if not exclusively indoors, to test the end-to-end functionality of 3.5 GHz hardware. This testing will include access points, core network, and user devices.

- 3) Dates of Operation:

August 21, 2017 to August 21, 2019

- 4) Class(es) of Station(s):

Sunesys will utilize a variety of fixed and mobile transmitters for the indoor and outdoor testing. Operations will be limited to 30 kilometers around the fixed location provided below.

5) Location(s) of Proposed Operations:

40 26 37 N; 79 56 41 W  
4902 Forbes Ave  
Pittsburgh, PA 15213  
Operations within 30 kilometers of this fixed location.

6) Equipment To Be Used:

Sunesys will use up to 6 fixed prototype transmitters and up to 6 mobile prototype transmitters for this testing.

7) Frequencies Desired:

3550-3700 MHz.

8) Power Levels:

1.6 W of output power; 30.5 W ERP peak for fixed transmitters.

0.1 W of output power, 0.1 W ERP peak for some mobile equipment.

0.1 W of output power, 5 W ERP peak for some mobile equipment.

9) Type of Emission, Modulation Technique, and Bandwidth Required:

20M0W7W; 40M0W7W.

10) Overall Height of Antenna(s) Above Ground/Orientation:

Directional antenna used with beamwidth of 90 degrees; 120 degrees from True North in horizontal plane; 7 degrees from horizontal orientation in the vertical plane. Antennas will not extend more than 6 meters above the building or structure mounted on.

11) Contact Information

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