

May 9, 2017

Nnake Nweke, Ph.D. (Engr.), Esq.  
Chief, Experimental Licensing Branch  
Office of Engineering and Technology  
Federal Communications Commission  
445 12th Street, SW  
Washington, D.C. 20510

Nokia Bell Labs  
US LLC

Address:  
600 Mountain Ave  
Murray Hill, NJ 07974

RE: Addition of Station and Antenna Registration: Directional Antenna Information  
License Service Application, File No. 0116-EX-CM-2017 (modification to existing  
experimental license, call sign WI2XFC, File No. 0087-EX-CM-2017)

Dear Chief Nweke,

This is the exhibit for the directional antennas. The same exhibit has been provided in the  
already granted experimental license, call sign WI2XFC.

Fixed/Base Stations:

- Access Point (AP) will use multiple antennas:
  - No downtilt
  - No tilt in azimuth
  - Minimum azimuth beam width (-3dB to -3dB), 45 degrees
  - Maximum azimuth beam width (-3dB to -3dB), 90 degrees
  - Minimum elevation beam width (-3dB to -3dB), 8 degrees
  - Maximum elevation beam width (-3dB to -3dB), 22 degrees
  - Beam direction perpendicular to antenna array surface

User Devices:

- User Device (UD) will use multiple antennas
  - No downtilt
  - No tilt in azimuth
  - Minimum azimuth beam width (-3dB to -3dB), 45 degrees
  - Maximum azimuth beam width (-3dB to -3dB), 90 degrees
  - Minimum elevation beam width (-3dB to -3dB), 8 degrees
  - Maximum elevation beam width (-3dB to -3dB), 22 degrees
  - Beam direction perpendicular to antenna array surface

Nokia proposes to operate using BPSK, QPSK, 16QAM, 64QAM, and 256 QAM modulation.

Transmit bandwidths are: 400 and 800  
MHz.

The primary emission designators are:  
400MW7W  
800MW7N

The equipment is configured to  
operate at a Maximum Transmit  
power of 47.8 Watts EIRP. Nokia  
will vary the actual powers within the  
maximums noted above to test  
coverage results.

New Station added to Application with the same parameters as the existing stations.

City – Highland Park

State – New Jersey

Address – 406 Raritan Ave

Latitude North 40 29 58.8

Longitude West 74 25 32.2

Yours sincerely,

Glenn Steitz

Senior Manager

Nokia Bell Labs

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