

STATE OF OHIO 700 MHZ Long Term Evolution (LTE) Demonstration

NARRATIVE STATEMENT

Pursuant to Section 5.3(e) and (f) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(e), (f), 5.61 (2014), the State of Ohio (FCC Registration Number ("FRN") (0004855151) , hereby respectfully requests special temporary authority ("STA") from **October 22 through November 7, 2016**, to operate in the 758-768/788-798 MHz bands for the purpose of testing and evaluating the functionality and acceptability of prototype broadband Long-Term Evolution ("LTE") equipment at one location within the State listed below.

A. Purpose of Operation and Need for STA:

The State of Ohio seeks to test the functionality of prototype devices designed to support the needs of the public safety and homeland security community. Specifically, it proposes to conduct tests and evaluations of prototype equipment at the site listed below. So that all operations from set-up to tear-down are covered by Commission authorization, the State respectfully requests that the FCC grant the STA for the period October 22 through November 7, 2016.

B. Locations of Proposed Operation:

The State proposes to conduct its demonstrations at the location listed below. Equipment would include five temporary base stations and associated antennas, along-with a small number of portable/mobile units that would operate within a kilometer radius of each site. The address and approximate reference coordinates for location of the temporary fixed base station deployment are:

Location No. 1 The Ohio State University Football Stadium Columbus, OH Latitude 40 00 06 N Longitude 83 01 11 W	

C. Technical Specifications:

1. Frequencies Desired

The State seeks authorization to operate in the bands 758-768/788-798 MHz allocated for a nationwide public safety broadband network yet to be built and licensed to FirstNet on a nationwide basis.

2. Effective Radiated Power

All power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation.

At the location, up to 75 portable/mobile units will be deployed and configured to operate at a maximum power level of 160 mW effective radiated power ("ERP"). Five base stations will be located at the site and will be configured to operate at a maximum power level of 160 Watts ERP. The State will reduce the actual powers to the minimum power needed for successful operation, based on set-up and testing at the demonstration site.

3. Modulation and Emissions

The State proposes to operate using OFDM modulation. The primary emission designators are 10M0G7D, 10M0W7W, 10M0G2D, and 10M0D7D. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested.

4. Antenna Information

The antenna for the temporary fixed base stations will be located at a height no greater than 20 feet above ground or, if mounted on a building or tower structure, not higher than 20 feet above those structures. The portable/mobile unit antennas in and around the test site will be located as required for a successful evaluation. No antennas will be mounted in a fashion that will require approval under FAA and FCC rules and regulations.

5. Equipment To Be Used

The State expects to conduct its demonstration with five base units and up to 75 mobile/portable units per location. Moreover, it will limit the power, area of operation, and transmitting times to the minimum necessary to provide an effective demonstration.

D. Protection Against Causing Interference:

As noted above, the State has requested authority to operate in the 758-768/788-798 MHz bands allocated for a nationwide public safety broadband network and licensed to FirstNet on a nationwide basis.

Under Commission rules, Low Power TV stations and auxiliary stations were previously required to vacate the 700 MHz band, so no interference should occur to broadcast facilities.

The State also conducted a search of the Commission's Universal Licensing System ("ULS") database and determined that the proposed demonstration at the events should not interfere with any primary operations in that spectrum.

Furthermore, as noted above, the length of the demonstration period is short, extending only from October 22 through November 7, 2016.

E. Restrictions on Operation:

The State is not seeking authority to perform a market study under this STA. Moreover, no fees will be charged to entities using the equipment during this test. After the test is completed, it will disassemble the demonstration facilities.

The State also recognizes that the operation of any equipment under experimental authority must not cause harmful interference to authorized facilities. In the unlikely event interference occurs, the State will take immediate steps to resolve the interference, including discontinuance of operation if necessary.

Entities will be advised in accordance with Section 2.803 of the Commission's rules, 47 C.F.R. §2.803 (2014), that any unapproved devices which have not been authorized as required by the FCC are not being offered for sale or lease, or sold or leased, until authorization is obtained.

F. Public Interest:

The State of Ohio submits that issuance of an STA as requested is in the public interest, convenience, and necessity. Grant of an STA will help the State evaluate equipment that will accommodate the communications needs of the public safety community.

G. Contact Information:

For questions about this application, please contact:

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In the unlikely event interference concerns should arise during the period of authorization for this STA, please contact:

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