

NARRATIVE STATEMENT

Pursuant to Section 5.3(d) and (f) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(d), (f), 5.61 (2016), Motorola Solutions, Inc., hereby respectfully requests special temporary authority ("STA") from **October 20 through October 25, 2017**, to operate in the 758-768/788-798 MHz bands for the purpose of demonstrating prototype broadband Long-Term Evolution ("LTE") equipment to public safety agencies during the International Association of Chiefs of Police ("IACP") Conference to be held in at the Philadelphia Convention Center.

A. Purpose of Operation and Need for STA:

Motorola Solutions is a leading manufacturer of mobile radio equipment for the public safety and homeland security community and is continually engaged in the design and development of new and innovative communications equipment. The experimental authority requested herein will allow the company to demonstrate the functionality of prototype devices designed to support the needs of the public safety and homeland security community.

Specifically, Motorola Solutions proposes to conduct demonstrations of prototype equipment during the IACP Conference to be held at the Philadelphia Convention Center. To accommodate set-up requirements as well as to ensure all operations up to demo tear-down are covered by Commission authorization, Motorola Solutions respectfully requests that the FCC grant the STA for the period October 20 through October 25, 2017.

Grant of an STA will allow Motorola Solutions to demonstrate prototype equipment and obtain additional feedback so that it may enhance the company's efforts to design, develop and improve its equipment to meet the communications needs of potential users.

B. Location of Proposed Operation:

Motorola Solutions proposes to conduct its demonstrations at the at the Philadelphia Convention Center. Equipment would include two temporary base stations and associated antenna, along-with a limited number of portable/mobile units, all operating near the base stations. The address and approximate reference coordinates (in Datum: NAD83) of the temporary fixed base station is:

Philadelphia Convention Center
1101 Arch Street
Philadelphia, PA 19107

39° 57' 14.15" North Latitude
75° 09' 31.95" West Longitude
Datum: NAD83

C. Technical Specifications:

1. Frequencies Desired

Motorola Solutions requests 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 the First Responder Network Authority ("FirstNet").

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.

Up to 5 portable/mobile units will be deployed and configured to operate at a maximum average power level of 250 mW effective radiated power ("ERP") and a maximum peak power level of 2.5 Watts ERP. The base station will be located at the Convention Center and will be configured to operate at a total maximum output of 2 watts, but typically Motorola Solutions does not operate with an output power level above 0.75 watts and with a maximum radiation footprint of one kilometer. Moreover, there will be no additional eNB devices radiating at any other point at the Convention Center to support its demonstration.

Motorola Solutions will also 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

Motorola Solutions proposes to operate using OFDM modulation. The primary emission designators are 5M0G7D, 5M0W7W, 5M0G2D, 5M0D7D, 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 station will be located at the Philadelphia Convention Center at a height no greater than 20 feet above the floor. The portable/mobile unit antennas in and around the demonstration site will be located as required for a successful demonstration. No antennas will be mounted in a fashion that will require approval under FAA and FCC rules and regulations.

5. Equipment To Be Used

Motorola Solutions expects to conduct its demonstration with one base unit and up to five mobile/portable units. It will limit the power, area of operation, and transmitting times to the minimum necessary to provide an effective demonstration. Specifically, Motorola Solutions proposes to operate one LXN 500 LTE Ultra Compact Infrastructure unit which will house the EPC, eNB and application server in one self-contained unit. The system will also come with a backpack, two antennas and two hot swappable batteries (9-32 vDC). In addition, Motorola Solutions will have the typical IP based cameras mounted on various overhead poles downloading video to one LXN 500 system which will then be supplied to various devices for customer viewing.

D. Protection Against Causing Interference:

As noted above, Motorola Solutions 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. Motorola Solutions understands that it must accept interference from any other users of these bands and that all operations by Motorola Solutions will be on a secondary basis. Moreover, Motorola Solutions has established a point of contact (“POC”) identified below with “kill switch” authority and will send the POC’s contact information to FirstNet upon agency approval of the requested STA.

Motorola Solutions also conducted a search of the Commission’s Universal Licensing System (“ULS”) database and verified that the proposed demonstration in Philadelphia should not interfere with any primary operations in that spectrum. Moreover, 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.

Furthermore, as noted above, the length of the tests and demonstrations will be limited, extending from only October 20 through October 25, 2017.

In summary, the analysis conducted by Motorola Solutions indicates the proposed operation should not interference with any licensed operation. Should interference occur, Motorola Solutions will take immediate steps to resolve the interference, including if necessary arranging for the discontinuance of operation.

E. Restrictions on Operation:

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

Motorola Solutions 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, Motorola Solutions 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 (2016), 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:

Motorola Solutions submits that issuance of an STA as requested is in the public interest, convenience, and necessity. Grant of an STA will help Motorola Solutions to develop innovative equipment that will accommodate the communications needs of the public safety community.

G. Contact Information:

Technical Contact and "Stop Buzzer/Kill Switch:"

Geoff Grode
Lead Technician
Motorola Solutions, Inc.
Telephone: (224) 325-9729
Geoffrey.Grode@motorolasolutions.com

Motorola Solutions FCC Contact:

Chuck Powers
Director, Engineering & Technology Policy
Motorola Solutions, Inc.
1455 Pennsylvania Ave NW, Suite 900
Washington, DC 20004
Telephone: (202) 371-6900
Chuck.Powers@motorolasolutions.com

FCC Legal Counsel:

Kurt DeSoto
Wiley Rein LLP
1776 K Street, N.W.
Washington, DC 20006
Telephone: (202) 719-7235
Facsimile: (202) 719-7207
kdesoto@wileyrein.com