

NARRATIVE STATEMENT

Pursuant to Section 5.3(e), (g) and (h) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(e), (g) and (h), 5.61 (2015), Motorola Solutions, Inc., hereby respectfully requests special temporary authority ("STA") 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 and related entities at its new corporate office location in Chicago, Illinois.

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 tests and demonstrations of prototype equipment at its offices located at 500 W. Monroe Street, Chicago, Illinois. 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:

As noted above, Motorola Solutions proposes to conduct tests and demonstrations at its new office location in Chicago, Illinois. Equipment would include temporary base stations and associated antennas, along-with a small number of portable/mobile units, all operating in the vicinity of the office. The address and approximate reference coordinates (in Datum: NAD83) of the temporary fixed base stations are:

500 W. Monroe Street
Chicago, Illinois 60661

41° 52' 51" North Latitude
-087° 38' 24" West Longitude

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 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.

Up to 20 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 stations will be configured to operate at a maximum average power level of 5 Watts ERP and a maximum peak power level of 50 Watts ERP. Motorola Solutions 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

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 antennas for the temporary fixed base stations will be located at 500 W. Monroe Street in Chicago at a height not greater than 20 feet above the ground or a building. The portable/mobile unit antennas will operate in and around the temporary fixed site 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 up to four base units and up to twenty mobile/portable units. The base stations and mobile/portable units are prototype equipment. Motorola Solutions 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, 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 on a nationwide basis. Motorola Solutions recognizes 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 in connection with the 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 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 in duration.

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 this 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.

In addition, entities will be advised in accordance with Section 2.803 of the Commission’s rules, 47 C.F.R. §2.803 (2015), 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:"

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