

NARRATIVE STATEMENT

Pursuant to Sections 5.3 (e) through (h), 5.51 and 5.53 of the Federal Communication Commission ("FCC") rules, 47 C.F.R. §§ 5.3 (e) through (h), 5.51, 5.53 (2014), Motorola Solutions, Inc. ("MSI"), hereby respectfully requests an experimental license to operate on selected channels in the 410-430 MHz band for the purpose of conducting tests in connection with the development of land mobile radio devices and systems. The testing will be conducted near its research and manufacturing facilities in Plantation, Florida.

The following provides additional details regarding this request.

A. Purpose of Operation and Need for Experimental License:

MSI 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 test and demonstrate the performance and functionality of prototype devices designed to support the needs of the public safety and homeland security community.

Specifically, MSI proposes to conduct testing of prototype equipment at locations near its offices at 8000 West Sunrise Boulevard in Plantation, Florida. Grant of an experimental license will allow MSI to test and demonstrate prototype equipment to enhance the company's efforts to design and develop its equipment to meet the communications needs of potential users.

B. Location of Proposed Operation:

MSI proposes to conduct tests using not more than three fixed base station transmitters and antennas located within 5 kilometers of its offices in Plantation, Florida. The address and center coordinates (in Datum: NAD83) of its offices are:

8000 West Sunrise Boulevard
Plantation, Florida 33322
26° 08' 46.55" North Latitude
80°15' 17.25" West Longitude

C. Technical Specifications:

1. Frequencies Desired

MSI requests authorization to operate on selected channels in the 410-430 MHz band, with a 10 MHz separation between fixed and mobile operations. MSI recognizes that the channel bands it has requested, as listed in Appendix A, are allocated for licensed uses. Accordingly, it will coordinate and cooperate with other users to ensure against interference. Moreover, MSI has researched the FCC's licensing databases and proposes to operate on channel centers that are not currently assigned to other licensees in the area or that are spectrally separated from channel centers offset from the channel centers currently assigned to other licensees in the area. In addition, MSI does not propose to operate on channel centers deployed by licensees in the public safety, aeronautical, or public coast radio services. Company personnel will also monitor the operations of other users before commencing transmissions to avoid interference to such users.

The table in Appendix A identifies representative channels within the specified bands that may be available for the company's use on a non-interference basis. Nevertheless, the company is amendable to the issuance of experimental authority to use other channels within those bands should the Commission staff or interested parties prefer that it operate on other channels. The equipment to be used is frequency agile and can be tuned at the time of the experiment to other channels.

MSI also recognizes that the use of certain frequencies may require coordination through the Interdepartment Radio Advisory Committee ("IRAC") and MSI is amendable to deleting certain frequencies from the bands requested and coordinating with Federal government personnel prior to commencing any transmissions.

In the event that it receives a complaint of harmful interference resulting from the proposed operation, MSI will take immediate action to address the interference, including if necessary discontinuing its operations. The company has designated Mr. Chuck Powers, whose contact information is provided below, to act as the "stop buzzer" for this purpose.

Notwithstanding the precautions it will take, MSI does not expect harmful interference to occur. First, company personnel will monitor the operations of other users before commencing transmissions to avoid interference to such users. Second, the proposed operations will be limited in scope. The base stations will typically transmit periodically on any specific channel. Third, MSI will not be operating simultaneously from all transmitters it has requested

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. The mobile/portable units to be deployed are configured to operate at a maximum peak effective radiated power ("ERP") power level of 10 Watts. The base stations will be configured to operate at a maximum peak ERP of 40 Watts. MSI will vary the actual powers within the maximums noted above to test coverage results.

3. Modulation and Emissions

The primary emission designators are 18K0W7W and 18K0W7D. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested.

4. Antenna Information

The fixed base station transmitter antennas will be located indoors as well as outdoors at its offices in Plantation, Florida, as described above. Should MSI install antennas outdoors, the heights will not exceed 20 feet above an existing antenna structure or building. The mobile/portable antennas will be operated at heights not greater than 6 meters above ground when used outdoors or at various locations as needed for testing when used indoors. No antennas will be mounted in a fashion that will require approval under FAA and FCC rules and regulations.

5. Equipment To Be Used

MSI expects that it will be able to conduct its demonstration with not more than three base stations and twenty mobile/portable units. Moreover, MSI will limit the power, area of operation, and transmitting times to the minimum necessary to evaluate the equipment.

D. Restrictions on Operation/ Protection Against Interference:

MSI is not seeking authority to perform a market study under the experimental license it has requested. Moreover, no fees will be charged to entities using the equipment during this test. After the test is completed, MSI will recall and recover all devices that do not comply with FCC regulations.

MSI also recognizes that the operation of any equipment under experimental authority must not cause harmful interference to authorized facilities. Should interference occur, MSI will take immediate steps to resolve the interference, including if necessary arranging for the discontinuance of operation.

In addition, MSI will advise entities using the equipment that permission to operate has been granted under experimental authority issued to MSI, that such operation is strictly temporary, and that the equipment may not cause harmful interference. Entities will also be advised in accordance with Section 2.803 of the Commission's rules, 47 C.F.R. §2.803 (2014), that any unapproved devices have not been authorized as required by the rules of the FCC and are not being offered for sale or lease, or sold or leased, until authorization is obtained.

E. Public Interest Statement:

MSI submits that issuance of an experimental license as requested is in the public interest, convenience, and necessity. Grant of an experimental license will permit MSI to develop innovative equipment that will accommodate the communications needs of the public safety and homeland security community.

F. 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 license, please contact the person below, who will also serve as the "stop buzzer."

Chuck Powers
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APPENDIX A - PROPOSED FREQUENCIES

Band (MHz)	Sample Center Channels (MHz)*
410.000-417.500 (MO)	410.500, 411.600, 412.700, 413.025, 413.450, 413.975, 414.600
420.500-430.000 (FX)	420.500, 421.600, 422.500

- * Other channels may be used within the bands identified above when necessary to avoid interference. MSI proposes to operate on channel centers that are either: (1) not assigned to other licensees in the area; or (2) spectrally separated (*e.g.*, on channels offset from the channel centers assigned to licensees) from the channel centers of other licensees. In particular, the company will not operate on channel centers deployed by licensees in the public safety, aeronautical, or public coast radio services.

Where the table identifies a band segment rather than a specific channel, the company will select channel centers as described above, provided the separation between the fixed and mobile channel is separated by 10 MHz. In addition, the company will monitor the operations of other users before commencing transmissions to avoid interference.