

NARRATIVE STATEMENT

Pursuant to Sections 5.1, 5.51 and 5.61 of the Commission's rules, 47 C.F.R. §§ 5.1, 5.51 and 5.61 (2005), Motorola, Inc. ("Motorola"), respectfully requests a special temporary authority ("STA"), beginning **February 1, 2007**, to test and demonstrate a prototype WiMAX network comprised of equipment under development for export only operating in the 3400–3600 MHz band. The following information is provided in support of this request:

Purpose of Operation:

Motorola is actively involved in the research and development of hardware and software solutions associated with fourth generation ("4G") cellular and wireless data communications systems that will meet the IEEE 802.16 standard. By this application, it seeks authorization to conduct a brief and limited test of a prototype WiMAX wireless wideband network comprised of equipment to be deployed at not more than three temporary fixed locations on the campus of the University of Arkansas at Little Rock. Motorola believes that it can complete the test and demonstration of this technology within 180 days of commencement.

The proposed test will follow and extend the research associated with an earlier trial of Motorola's WiFi solution as well as the tests performed by Motorola pursuant to an experimental license issued under call sign WC9XQF. See OET File No. 0354-EX-ST-2006. The purpose of the test to be conducted under the authority requested by this application is to demonstrate the functionality of capabilities of new broadband wireless technologies to a key Motorola customer engaged in the business of providing telecommunications services so that that the customer may evaluate, and make an informed assessment of, the acceptability of 4G technologies.

Motorola will not perform a market study under this experimental license, however. Moreover, it proposes to test and demonstrate equipment designed for export only. Motorola does not intend to test equipment for non-governmental use in the United States. The 3400–3600 MHz band is used outside the U.S., and Motorola seeks to test and design equipment and applications optimized in that band to remain competitive with other manufacturers.

Proposed Location:

Motorola proposes to install a limited WiMAX network comprised of not more than three temporary fixed locations and 25 mobile devices per location to be operated within a 4 km radius of the campus of the University of Arkansas, Little Rock. The University's address is:

1700-2800 S. University Drive
University of Arkansas
Little Rock, AR 72204

Technical Specifications:

Application Type/Classification: XE (Experimental Export Only)

Frequency Band 3400–3600 MHz.

Motorola requires two 7 MHz channels within the range of 3400 to 3600 GHz to complete its trial. Each channel would be full duplex, i.e. each 7 MHz channel has both uplink and downlink components, separated in time. Motorola proposes to use a guard band of one-half channel on each side of the provided spectrum for a combined total trial spectrum need of 21 MHz (7 + 7 + 3.5 +3.5).

Bandwidth / Emission Designators: 7M00F7W

As the modulation bandwidth is scaleable, other emission modes may be utilized, but in no event will the emissions extend beyond the frequency band requested. All power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation.

Power/Antenna Specifications:

Diversity Access Points or DAPs (Temporary Fixed Devices),

Maximum Transmitter Power Output: 1,000 milliwatts transmitter, two transmitters per carrier. Motorola requires two temporary fixed transmitters at each location so that it may use one as a primary transmitter and the second as an interferor.

PCMCIA Cards (Mobile Devices):

Maximum Transmitter Power Output per Device: 200 milliwatts

Customer Premises Equipment (Subscriber Devices):

Maximum Transmitter Power Output per Device: 500 milliwatts

CISPR quasi-peak measurements are to be taken in the linear mode only.

Equipment To Be Used:

Motorola proposes to employ only a limited number of units under this trial. It expects that it will be able to complete its experimentation and demonstration with a maximum of six temporary fixed transmitters (two at each of three temporary fixed locations) and 75 mobile units (25 mobile units in the vicinity of each temporary fixed location). Nevertheless, Motorola will limit the power, area of operation, and the transmitting times of these units to the minimum necessary to evaluate the technology.

Specifically, Motorola proposes to deploy three four-sector DAPs, installed at temporary fixed locations at low elevations or on rooftops and aimed downward to optimize local coverage, predominantly outdoors with some degree of in-building penetration along walls

facing the proposed sites. The operational radius from each DAP will be less than four kilometers. In addition, Motorola will deploy up to 25 PCMCIA cards into laptop computers or other subscriber devices to be operated near each temporary fixed location. These devices will be mobile throughout the coverage area.

Antenna / Antenna Structure Heights:

Motorola will comply with all FAA and FCC rules and regulations regarding the installation and operation of antennas. The antennas to be deployed under this authority will not extend more than six meters above the ground or, if mounted on an existing building, will not extend more than six meters above the building. Within those limitations, DAPs will be installed less than 20 meters above ground level and the PCMCIA cards or other subscriber devices will operate not more than 2 meters above ground or floor level if in a building.

Restrictions on Operation:

Motorola understands that the FCC permits companies to conduct a number of tests without an STA. For example: (1) companies may enter into agreements and contracts to manufacturer products before they are approved; (2) manufacturers to sell—but not deliver— unapproved products on a conditional basis to wholesalers and retailers; and (3) entities may operate certain types of equipment to (a) test compliance; (b) demonstrate equipment at trade shows and other exhibitions with appropriate notices displayed; and (c) evaluate product performance and customer acceptability at the manufacturer's facilities or at certain non-residential sites during the developmental, design and pre-production stages. See Marketing Rule Revisions, § 2.803; Part 15 Revisions, 6 FCC Rcd 1683, 1685 (1991).

Notwithstanding these general rules, the FCC requires parties to seek authorization to use unapproved devices that will be operated at residential locations. Such authority may be granted under the FCC's experimental rules set forth in Part 5 of the Code of Federal Regulations, 47 C.F.R. Part 5 (2005), provided that: (1) participants are advised that the service or device is granted under experimental authority and is strictly temporary; and (2) the devices are owned by the licensee. Accordingly, this application seeks experimental authority to conduct experimental operations at residential locations as permitted under these rules.

Motorola does not propose to market, sell, or lease prototype equipment to end users or conduct a market study in conjunction with this test. Moreover, no fees will be charged to entities using the equipment during this test. After the experimentation ceases, Motorola will recall and recover all devices that do not comply with FCC regulations. If any different treatment becomes necessary during the course of its experimentation, Motorola will seek separate and additional authority from the agency.

Motorola also recognizes that the operation of any unapproved devices must not cause harmful interference to authorized facilities. It does not anticipate that such interference will occur, as the prototype equipment will operate at low power. Should interference occur, however, Motorola will immediately take reasonable steps to resolve the interference, including if necessary discontinuing operation. To that end, Motorola would advise entities using the equipment that permission to operate the equipment has been granted under experimental authority issued to Motorola, is strictly temporary and may be canceled at any time. For example, Motorola proposes to label the equipment or user information conspicuously as follows:

FCC STATEMENT
Permission to operate this device has been granted under experimental authority issued by the Federal Communications Commission to Motorola, Inc., is strictly temporary, and may be canceled at any time. This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained. Thus, the user does not hold a property right in the device and may be required to return the device.

The PCMCIA cards are physically too small for this label to be affixed in a position where the label can be seen with the card installed. Thus, Motorola proposes to include the required statement in the product documentation and to label the PCMCIA card “Prototype – Not for Sale.”

In addition, Motorola will monitor the spectrum for amateur radio activities and, in particular, minimize any transmission in the 3450–3460 portion of the band, which is used for weak signal work (in particular 3456 MHz).

Last, the equipment will utilize Transmit Power Control (“TPC”) capabilities, which will serve to control the radiofrequency power to the minimum required to support communications on the channel for the particular path involved.

Public Interest:

Motorola submits that issuance of an STA is in the public interest, convenience, and necessity, as it will permit Motorola to develop innovative equipment that will accommodate the communications needs of its customers and, ultimately, their end-users.

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