

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 (2006), Motorola, Inc. ("Motorola"), respectfully requests special temporary authority ("STA") for a five-month period beginning **March 1, 2008**, to test and demonstrate prototype wireless broadband solutions under development for operation in the 3650–3700 MHz band.

Purpose of Operation:

Motorola is actively involved in the research and development of hardware and software solutions associated with wireless broadband systems that would operate in the 3650-3700 MHz band in compliance with the FCC services rules for this band.¹ In particular, Motorola is researching the capabilities and functionality of adaptive antenna arrays (including their propagation modeling, predictive channel equalization, and beam forming characteristics) to increase channel capacity. Motorola's efforts should yield benefits for the development of wireless broadband capabilities.

By this application, Motorola seeks authorization to conduct limited tests of a prototype wideband network to be deployed at three locations in Arkansas. It was recently asked to conduct a demonstration for customer acceptability at three locations in Arkansas for a period of five months beginning on March 1, 2008. Specifically, Motorola proposes 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 the technology. Motorola believes that it can complete the test and demonstration of this technology within 150 days or five months of commencement.

Motorola will not perform a market study under this experimental license. As discussed in greater detail below, Motorola does not propose to market, sell, or lease prototype equipment to end users. Moreover, no fees will be charged to entities evaluating the equipment during this test. After the experimentation ceases, Motorola will recall and recover all devices.

¹ See Wireless Operations in the 3650-3700 MHz Band, ET Docket No. 04-151, *Report and Order*, 20 FCC Rcd 6502 (2005), Memorandum Opinion and Order, 22 FCC Rcd 10421 (2007).

Proposed Locations:

Motorola proposes to operate prototype systems comprised of not more than 15 temporary fixed stations and 50 mobile devices to be operated within a 50 km radius of each of the following three locations:

Location No. 1 Little Rock, AR 34-45-53.7N; 092-26-39.9W (NAD83)	Location No. 2 Little Rock, AR 34-46-09.6N; 092-18-36.6W (NAD83)0	Location No. 3 Conway, AR 35-05-04.0N; 092-28-21.0W (NAD83)
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Technical Specifications:

Application Type/Classification: XD (Experimental)

Frequency Band 3650–3700 MHz.

Motorola requires varying bandwidths up to 7 MHz within the range of 3650 - 3670 MHz to complete its trial.

Modulation / Bandwidth / Emission Designators: OFDM, 3M00W7D to 7M00W7D

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:

Motorola will comply fully with the power limits set forth in Section 90.1321 of the FCC's rules, 47 C.F.R. §90.1321 (2006), governing maximum effective isotropic radiated power ("EIRP"). For purposes of this request, it has calculated the transmitter power output ("TPO") and effective radiated power ("ERP") as follows:

Base Transmitter Station ("BTS") units (Temporary Fixed Devices):

Maximum TPO: 0.28 watts

Maximum ERP: 23 watts

Customer Premises Equipment (Subscriber Devices):

Maximum TPO: 0.22 watts

Maximum ERP: 1 watt

Power Levels are expressed as Peak measurements.

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 15 temporary fixed transmitters and 50 mobile units at each location.

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 or tower, will not extend more than six meters above the building or above the FAA/FCC approved height of the tower with appurtenances.

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:

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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.

If any devices are physically too small for this label to be affixed in a position where the label can be seen with the card installed, Motorola proposes to include the required statement in the product documentation and to label the device "Prototype – Not for Sale."

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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