



September 7, 2006

SUBMITTED ELECTRONICALLY

James R. Burtle
Chief, Office of Engineering and Technology
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

**Re: Request for Expedited Treatment
of Experimental License Application
OET File No. 0336-EX-PL-2006**

Dear Mr. Burtle:

Motorola respectfully requests expedited treatment of its application pending under File No. 0336-EX-PL-2006 so that it may commence demonstrations essential to its research and development beginning on September 11, 2006.

Motorola is a leading manufacturer of communications equipment for use by consumers, public safety service providers and government agencies. It is continually engaged in the design and development of new and innovative equipment to meet their expanding and critical communications needs. The company must also test and demonstrate equipment during various stages of design and development to evaluate its functionality, acceptability, and interoperability prior to seeking equipment authorization. For example, Motorola evaluates the performance, capacity, signal quality, and data rates of such equipment. By evaluating products before obtaining FCC equipment approvals, Motorola is able to identify and make needed enhancements to ensure its products meet public safety and homeland security communications needs.

Motorola submitted the above-referenced application on June 30, 2006, providing over two months advance notice of its proposed research and development of digital hand-held video transmission capabilities (or "DVB-H") at its laboratories in the Chicago area. Indeed, DVB-H is a significant priority for Motorola, and the requested authority will allow three separate company laboratories to perform critical tests and demonstrations of this new technology and conduct research and development essential to the improvement of this technology. Nevertheless, the application remains pending at this time. Accordingly, Motorola now seeks expedited treatment of its application, and provides the following justification in support of its request.

First, grant of the experimental authority by September 11, 2006, is required to allow Motorola to demonstrate prototype devices at a key annual meeting that week of several hundred Motorola representatives from across the United States and overseas. These representatives will evaluate the equipment and provide the company with needed feed-back that the company will

use to make improvements and design changes to proposed equipment. "Hands on" operation of these devices is essential to obtain useful data. Moreover, such testing will provide representatives with the information they will require to educate users regarding the key features of this new technology.

Second, the requested authority will allow Motorola to demonstrate this innovative technology at the inaugural opening of its new "Technology Innovation Center" on September 15, 2006. The Center is an important centerpiece to display and demonstrate both current and prototype devices to its personnel, customers and users. The event will be attended by both members of the public and a number of invited guests who will be introduced to Motorola's new and proposed equipment.

Third, the relief Motorola seeks will afford it the opportunity to commence immediately additional research and development of a new technology that could enhance homeland security. Although the technology will be used primarily for entertainment purposes, it will also support the delivery of information to the public during serious emergencies, such as natural disasters and similar catastrophes, when other sources of information, including television and radio communications, are not available because of power outages and other problems.

With respect to the technical aspects of this request, please note that the underlying application does not seek to operate on government channels requiring IRAC coordination at the National Telecommunications and Information Administration ("NTIA"). Moreover, Motorola has completed its coordination with the Society of Broadcast Engineers ("SBE") and has received approval to operate on the limited channels specified in the application. Motorola has also provided your staff with the technical information required by the Media Bureau to review the proposal.

As a final matter, please be assured that Motorola understands that it must conduct its demonstrations on a non-interference basis and will immediately address any interference in the unlikely event that such should occur. To that end, Motorola confirms its acceptance of the operational conditions set forth in its narrative to the application (attached for your convenience) as well as those customarily imposed by the Commission.

Please call me if you have any questions about this request or would like to discuss it with me. I can be reached at (202) 719.6953 or Steve.Sharkey@Motorola.com.

Respectfully submitted,

/s/

Steve Sharkey
Director, Spectrum & Standards Strategy

Enclosure
cc: Mr. John Kennedy
12527949

**FCC FORM 442 - FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR NEW OR MODIFIED RADIO STATION UNDER PART 5 OF FCC
RULES - EXPERIMENTAL RADIO SERVICE (OTHER THAN BROADCAST)**

**Approved by
OMB
3060 - 0065
Expires
09/30/98**

Applicant's Name (company): Motorola, Inc. **File No.:** 0336-EX-PL-2006

Mailing Address

Attention: Daniel Waters
Street Address: 1303 E. Algonquin Road, 4th Floor
P.O. Box:
City: Schaumburg
State: IL
Country:
Zip Code: 60196
E-Mail Address: d.waters@motorola.com

Application Purpose

Application is for: NEW LICENSE

For Modification indicate below

File No.: 0261-EX-ST-2006 **Callsign:**

Government Contract

Is this authorization to be used for fulfilling the requirement of a government contract with an agency of the United States Government? If "YES", include as an exhibit a narrative statement describing the government project, agency and contract number. No

Foreign Government Use

Is this authorization to be used for the exclusive purpose of developing radio equipment for export to be employed by stations under the jurisdiction of a foreign government? If "YES", include the contract number and the name of the foreign government concerned as an exhibit. No

Research Project

Is this authorization to be used for providing communications essential to a research project? (The radio communication is not the objective of the research project)? If "YES", include as an exhibit the following information:

- a. A description of the nature of the research project being conducted.
- b. A showing that the communications facilities requested are necessary for the research project involved.
- c. A showing that existing communications facilities are inadequate.

No

Exhibit Information

If all the answers to Items 4, 5, 6 are "NO", include as an exhibit a narrative statement describing in detail the following items:

- a. The complete program of research and experimentation proposed including description of equipment and theory of operation.
- b. The specific objectives sought to be accomplished.
- c. How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated.

Estimated Duration

Give an estimate of the length of time that will be required to complete the program of experimentation proposed in this application: 24 Months

Environmental Impact

Would a commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? If "YES", include as an exhibit an Environmental Assessment as required by Section 1.1311. No

Manufacturer

List below transmitting equipment to be installed (if experimental, so state) if additional rows are required, please submit equipment list as an exhibit :

Manufacturer	Model Number	No. Of Units	Experimental
Axcera	1305211	1	Yes
Axcera	LU90ATC	1	Yes
Axcera	LU50ATC	2	Yes

Station ID

Is the equipment listed in Item 10 capable of station identification pursuant to Section 5.115? No

Applicant Type

Applicant is: Corporation

Foreign Government

Is applicant a foreign government or a representative of a foreign government? No

License Denied or Revoked

Has applicant or any party to this application had any FCC station license or permit revoked or any application for permit, license or renewal denied by this Commission?

If "YES", include as an exhibit a statement giving call sign of license or permit revoked and relate circumstances. No

Owner and Operator

Will applicant be owner and operator of the station? Yes

Contact Information

Give the following information of person who can best handle inquiries pertaining to this application: First Name:

Kurt

Last Name: DeSoto

Title: Counsel

Phone Number: (202)719-7235

E-Mail Address: kdesoto@wrf.com

Drug Abuse Question

APPLICANT ANTI-DRUG ABUSE CERTIFICATION: By checking "YES", the individual applicant certifies that he or she is eligible for this license. This requires that he or she is not subject to a denial of federal benefits, including FCC benefits, as a result of a drug offense conviction pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862. A non-individual applicant, e.g., corporation, partnership or other unincorporated association, certifies that no party to the application is subject to a denial of federal benefits, pursuant to that section. For definition of a "party" for these purposes, see 47CFR 1.2002(b). Yes

Certification

THE APPLICANT CERTIFIES THAT:

- a. Copies of the FCC Rule Parts 2 and 5 are on hand; and
- b. Adequate financial appropriations have been made to carry on the program of experimentation which will be conducted by qualified personnel; and
- c. All operations will be on an experimental basis in accordance with Part 5 and other applicable rules, and will be conducted in such a manner and at such a time as to preclude harmful interference to any authorized station; and
- d. Grant of the authorization requested herein will not be construed as a finding on the part of the Commission:
 - 1. that the frequencies and other technical parameters specified in the authorization are the best suited for the proposed program of experimentation, and
 - 2. that the applicant will be authorized to operate on any basis other than experimental, and
 - 3. that the Commission is obligated by the results of the experimental program to make provision in its rules including its table of frequency allocations for applicant's type of operation on a regularly licensed basis.

THE APPLICANT FURTHER CERTIFIES THAT:

- e. All the statements in the application and attached exhibits are true, complete and correct to the best of the applicant's knowledge; and
- f. The applicant is willing to finance and conduct the experimental program with full knowledge and understanding of the above limitations; and
- g. The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the USA.

Name of Applicant: Motorola, Inc.

Signature (Authorized person filing form): Daniel Waters

Signature Date (Authorized person filing form): 06/28/2006

Title of Person Signing Application: Business Development Manager

Classification: Authorized employee

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(A)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

NOTIFICATION TO INDIVIDUALS UNDER PRIVACY ACT OF 1974 AND THE PAPERWORK REDUCTION ACT OF 1980

Information requested through this form is authorized by the Communications Act of 1934, as amended, and specified by Section 308 therein. The information will be used by Federal Communications Commission staff to determine eligibility for issuing authorizations in the use of the frequency spectrum and to effect the provisions of regulatory responsibilities rendered by the Commission by the Act. Information requested by this form will be available to the public unless otherwise requested pursuant to 47 CFR 0.459 of the FCC Rules and Regulations. Your response is required to obtain this authorization.

Public reporting burden for this collection of information is estimated to average four (4) hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0065), Washington DC 20554. DO NOT send completed applications to this address. Individuals are not required to respond to this collection unless it displays a currently valid OMD control number.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

Station Location

City	State	Latitude	Longitude	Mobile	Street (or other indication of location)	County	Radius of Operation
0 Libertyville	Illinois	North 42 17 22	West 87 59 57				24.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? No

(a) Overall height above ground to tip of antenna in meters:

(b) Elevation of ground at antenna site above mean sea level in meters:

(c) Distance to nearest aircraft landing area in kilometers:

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft:

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	482.00000000- 488.00000000 MHz	FX	N/A 61.000000 W	M		6M00F2W	COFDM

	City	State	Latitude	Longitude	Mobile	Street (or other indication of location)	County	Radius of Operation
0	Schaumburg	Illinois	North 42 3 44	West 88 3 8				24.00

Datum: NAD 83

Is a directional antenna (other than radar) used? Yes

Exhibit submitted: Yes

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? No

(a) Overall height above ground to tip of antenna in meters:

(b) Elevation of ground at antenna site above mean sea level in meters:

(c) Distance to nearest aircraft landing area in kilometers:

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft:

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	482.00000000- 488.00000000 MHz	FX	N/A 100.000000 W	M		6M00F2W	COFDM

	City	State	Latitude	Longitude	Mobile	Street (or other indication of location)	County	Radius of Operation
0	Arlington Heights	Illinois	North 42 7 59	West 87 59 57				24.00

Datum: NAD 83

Is a directional antenna (other than radar) used? Yes

Exhibit submitted: Yes

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? No

(a) Overall height above ground to tip of antenna in meters:

(b) Elevation of ground at antenna site above mean sea level in meters:

(c) Distance to nearest aircraft landing area in kilometers:

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft:

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	482.00000000- 488.00000000 MHz	FX	N/A 100.000000 W	M		6M00F2W	COFDM

NARRATIVE STATEMENT

Pursuant to Section 5.51 of the Commission's rules, 47 C.F.R. § 5.51 (2005), Motorola, Inc., respectfully requests a regular, two-year experimental license beginning September 1, 2006, to test, evaluate and demonstrate prototype systems designed to transmit digital video signals in the band 482-488 MHz (Channel 16) to handheld receivers incorporated into cellular telephones.

Grant of this application would serve to replace and supplement Motorola's existing special temporary authority ("STA") for this experimentation granted under File No. 0261-EX-ST-2006 and issued under call sign WC9XIA. Specifically, this application proposes to replace the STA authorizing experimental operations at Libertyville, IL. It also seeks authority to operate at two additional sites in the Chicago area near the Libertyville location (at Schaumburg and Arlington Heights, IL).

As provided under Section 5.61(b) of the Commission's rules, 47 C.F.R. § 5.61(b)(2005), this application is also intended to serve as a renewal or extension of Motorola's authority to operate as permitted under its STA pending action on this application. Motorola understands that such renewal or extension applies only to the operations at Libertyville, IL; it must wait action on the application for a regular license before it may operate at the additional sites.

The following information is provided in support of this request:

Purpose of Operation:

Motorola is a leading manufacturer of cellular telephones and associated devices 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: (1) test compliance and performance of the systems, (2) demonstrate their operation and functionality to potential corporate purchasers and resellers interested in incorporating digital video technology into their offerings or operations, and (3) determine the customer acceptability.

Grant of the license will also allow Motorola to obtain feedback so that it may enhance the company's efforts to design, develop and improve its equipment to meet the communications needs of telecommunications providers and users.

Locations of Proposed Operations:

Motorola proposes to conduct its experimentation using a single base station at each of the transmitting locations listed below. Mobile operations will be receive-only and will occur within 24 kilometers of each of the base station locations.

Location No. 1:

Libertyville, IL

North Latitude: 42° 17' 22"

West Longitude: 87° 59' 57"

Datum: NAD83

Location No. 2:

Schaumburg, IL

North Latitude: 42° 03' 44"

West Longitude: 88° 03' 08"

Datum: NAD83

Location No. 3:

Arlington Heights, IL

North Latitude: 42° 07' 59"

West Longitude: 87° 59' 57"

Datum: NAD83

Equipment To Be Used:

Motorola proposes to deploy the following equipment at the above locations:

1. One (1) Axcera 1305211 DVB-H Modulator for DVB-T Transmitter (Each Location)
2. One (1) Axcera LU90ATC 90 Watt UHF DVB-T Transmitter with Stringent Mask Filter for channel 16 (At Location No. 1)
3. Two (2) Axcera LU50ATC 50 Watt UHF DVB-T Transmitter with Stringent Mask Filter for channel 16 (One each at Location Nos. 2 and 3)
4. Receive only mobiles (Each Location)

Type of Emission, Modulation Technique, and Bandwidth Required:

The transmissions will utilize the digital video transmission – handheld (“DVB-H”) modulation technique for a portable video technology intended to transmit video, audio and data to handheld devices. DVB-H modulation techniques differ from the 8-VSB modulation techniques employed for over-the-air digital television.

The transmit channel emission designator for the proposed operations is 6M00F2W, DVB-H COFDM and the maximum mean effective radiated power as specified in the supplemental information provided below. See Digital Video Broadcasting (DVB); Transmission System for Handheld Terminals (DVB-H), European Telecommunications Standards Institute EN 3020304 V1.1.1; November, 2004.

Other emission modes and modulation techniques may be utilized, but in no event will the emissions extend beyond the frequency band requested. Moreover, Motorola requests a waiver of the station identification requirements set forth in Section 5.115 of the Commission's rules, 47 C.F.R. § 5.115 (2005).

Frequencies Desired:

Motorola respectfully requests authorization to operate in the band 482-488 MHz (Channel 16). It does not expect ultimately to develop equipment to operate in this band, however. Motorola eventually plans to develop equipment to operate in spectrum authorized for such devices. It has chosen this spectrum only because the equipment available for the demonstration is designed for use overseas where this band is authorized for digital video transmissions.

Motorola has selected spectrum for this operation that it believes is unlikely to cause harmful interference to either broadcasting stations or to land mobile stations authorized in the 470-512 MHz portion of the UHF television band. More importantly, Motorola will coordinate its operations with the Society of Broadcast Engineers ("SBE") and will not operate on any other requested channels without SBE approval.

Indeed, Motorola has already contacted the SBE representative for the Chicago area and has initiated or obtained coordination on behalf of Motorola. Motorola shared with the representative its non-interference studies that show there are no operational, full power co-channel or adjacent channel TV stations that require protection on the channel that Motorola seeks to use within the interference range of the proposed test locations. The analysis was based upon the Commission's Broadcast Radio and Television Electronic Filing System ("CDBS") database information and interference studies per FCC OET Bulletin 69. These studies also demonstrate that the proposed stations will be operated to confine out-of-channel emissions within the "stringent" mask specified in Section 74.794 of the FCC's rules, 47 C.F.R. § 74.794 (2005). In addition, the antennas at Location Nos. 2 and 3 will operate with the null directed toward Chicago.

Motorola will also study environmental considerations to ensure compliance with Section 1.1306 of the FCC's rules, 47 C.F.R. § 1.1306 (2005), and, in particular, the human exposure requirements set forth in FCC OET Bulletin No. 65.

Overall Height of Antenna(s) Above Ground:

The mobile antennas will not, under any circumstances, extend more than 6 meters above the ground. No base station antennas will be mounted in a fashion that will require approval under FAA and FCC rules and regulations.

Restrictions on Operation:

Motorola will comply with all FCC rules and regulations governing the marketing and operation of unapproved radiofrequency devices prior to obtaining any needed equipment authorizations. See *generally* 47 C.F.R. § 2.803 (2005). For example, no unapproved equipment will be offered for sale or lease, or will be sold or leased, to end users inconsistent with the FCC's rules. Nor will Motorola conduct a market study in conjunction with these tests inconsistent with FCC rules. In addition, 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.

Moreover, the transmissions are not intended for the general public, and the public will not be able to display or view the transmissions on conventional television receivers or cellular telephones. As such, the demonstration will not involve “broadcasting” as defined in Section 3 of the Communications Act, 47 U.S.C. § 153(5). Instead, the operations are designed to demonstrate a new mobile service intended to complement digital cellular telecommunications service provided to subscribers.

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

As an additional safeguard, Motorola will advise entities using the equipment that permission to operate has been granted under experimental authority issued to Motorola, that such operation is strictly temporary, and that the equipment may not cause harmful interference. To that end, Motorola proposes to label the equipment or associated written information as follows:

FCC STATEMENT

Permission to operate this device has been granted under experimental authority issued by the Federal Communications Commission (FCC) to Motorola, Inc., is strictly temporary and may be cancelled at any time. Operation is subject to the condition that it not cause harmful interference. This device has not been authorized as required by the rules of the FCC. 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.

Public Interest Statement:

Motorola submits that issuance of a license is in the public interest, convenience, and necessity. Grant of a license will permit Motorola to develop innovative equipment that will accommodate the communications needs of users.

Contact Information:

Motorola Contact:

Daniel Waters
Business Development Manager
Early Stage Accelerator
Motorola, Inc.
1303 E. Algonquin Road, 4th floor,
Schaumburg, IL 60196
Office: (847) 632 5188
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Legal Contact:

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Wiley Rein & Fielding LLP
1776 K Street, N.W.
Washington, DC 20006
Office: (202) 719-7235
kdesoto@wrf.com

Supplemental Technical Information for FCC Staff

Location No. 1: NAD83: 42 17' 22" Lat 87 59' 57" Long (Libertyville, IL)
Location No. 2: NAD83: 42 03' 44" Lat 88 03' 08" Long (Schaumburg, IL)
Location No. 3: NAD83: 42 07' 59" Lat 87 59' 57" Long (Arlington Heights, IL)

1. Channel number(s).

Channel 16 (482-488 MHz);

2. Antenna location site elevation above mean sea level in meters.

Location No. 1: 768 m
Location No. 2: 224 m
Location No. 3: 225 m

3. Overall tower height above ground level in meters.

Location No. 1: 15 m
Location No. 2: 50 m
Location No. 3: 15 m

4. Height of radiation center above ground level in meters.

Location No. 1: 12 m
Location No. 2: 52 m
Location No. 3: 17 m

5. Maximum effective radiated power in kilowatts.

Location No. 1:	0.061 kilowatts, measured during the active transmitter period (no time averaging during inactive periods of emissions).
Location No. 2:	0.1 kilowatts, measured during the active transmitter period (no time averaging during inactive periods of emissions) with the null directed toward Chicago.
Location No. 3:	0.1 kilowatts, measured during the active transmitter period (no time averaging during inactive periods of emissions) with the null directed toward Chicago.

6. Transmitter output power in kilowatts.

Location No. 1: 0.090 kilowatts, line losses from transmitter to antenna and peak antenna gain account for a factor of 0.46 dB

Location No. 2: 0.033 kilowatts, line losses from transmitter to antenna and peak antenna gain account for a factor of 4.8 dB

Location No. 3: 0.033 kilowatts, line losses from transmitter to antenna and peak antenna gain account for a factor of 4.8 dB

7. Verify that the antennas are non-directional.

Location No. 1: The antenna is omni-directional.

Loc. Nos. 2 and 3: The antennas are directional; the radiating elements of the antenna will be configured such that there is at least a 0 dB null toward downtown Chicago.

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent).

Stringent mask

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none).

N/A. Emissions are digital.