



ILLINOIS STATE POLICE  
*Division of Operations*

Pat Quinn  
*Governor*

Hiram Grau  
*Director*

July 25, 2011

Mr. Douglas Phelps  
Motorola Inc.  
1301 East Algonquin Road  
Schaumburg, Illinois 60196-4041

Dear Mr. Phelps:

I am in receipt of your correspondence of July 22 in which you requested an extension of the authority provided to Motorola Solutions to perform LTE testing in the Schaumburg, Palatine, and Rolling Meadows area of northeastern Illinois.

In response to your request, the State of Illinois hereby provides this letter of concurrence in support of Motorola's application for extension of the experimental STA to operate in the 700MHz band spectrum for testing of LTE broadband equipment in the aforementioned area. This concurrence is granted with the understanding that Motorola Solutions continue to perform the testing in accordance with the parameters identified in the state's original correspondence of November 8, 2010.

Respectfully,

Daniel C. Meseke  
STARCOM21 System Administrator  
Illinois State Police  
Communications Services Bureau



ILLINOIS STATE POLICE  
*Office of the Director*

Pat Quinn  
*Governor*

November 8, 2010

Jonathon E. Monken  
*Acting Director*

Mr. Rich O'Herron  
Motorola Inc.  
1301 East Algonquin Road  
Schaumburg, IL

Mr. O'Herron:

The State of Illinois hereby provides this letter of concurrence in support of Motorola's proposed application for experimental special temporary authority ("Experimental STA") to authorize operation in the 700 MHz band spectrum for testing of Long Term Evolution ("LTE") broadband equipment in the Schaumburg and Palatine, Illinois area. The State understands the testing would conform to the following parameters:

- 1) LTE base stations will be located on the Motorola campus at 1301 East Algonquin Road, Schaumburg, IL; on the Harris Bank building at 800 East Northwest Highway, Palatine, IL; and at a communications tower located at 1350 Plum Grove Road, Rolling Meadows, IL. Mobile or portable LTE units would operate around these base sites. We understand the actual area of coverage is one of the parameters that will be determined by the proposed testing.
- 2) Motorola will request authority from the FCC to operate over the 758-768/788-798 MHz band. This encompasses both the 763-768 /793-798 MHz bands, which are currently licensed on a nationwide basis to Public Safety Spectrum Trust as part of the 700 MHz Public Safety Broadband License, and the 758-763/788-793 MHz bands known as the Upper 700 MHz D Block; which has not yet been licensed, but is being sought by public safety in discussions with Congress.
- 3) Motorola will request authority for experimental operation for a period of six months from the Experimental STA grant. It is possible that Motorola would request extending that experimental authority. Any future extension would depend on whether regular public safety or commercial deployment has begun in the spectrum by the time the experimental STA expires.

The spectrum proposed for experimental testing overlaps a segment of spectrum currently used by the State Police for vehicular repeaters that relay signals between portable handheld radios and the system infrastructure in some areas of the state. This spectrum overlap occurs because the FCC modified the 700 MHz band-plan after deployment of the Illinois STARCOM21 system was started. As a result, the current public safety broadband spectrum where the proposed LTE testing would be conducted overlaps some for the spectrum designated for narrowband operations under the previous plan, until the FCC defines additional steps concerning funding the transition of its operations to conform to the revised band-plan.

The State understands that Motorola has analyzed the potential for interference to the 700 MHz band Illinois STARCOM21 system from the proposed testing and has concluded that interference is unlikely given the specifics of the areas and frequencies involved. Specifically, Motorola has noted that the spectrum overlap for the proposed testing occurs on a portion of the spectrum used for vehicular repeaters to transmit to the portable radios. Therefore, any potential conflict would only be in areas where the vehicular repeaters are needed. There is no overlap on the portions of the spectrum used for communications directly between mobiles/portables and the system base stations within interference range of the proposed testing. While vehicular repeaters are a necessary part of the STARCOM21 system in some areas of the state, they are seldom needed for coverage in the vicinity of Schaumburg and Palatine. In those areas, the STARCOM21 system provides sufficient coverage for direct communications between portable radios and the system infrastructure without the need for vehicular repeaters. Therefore, interference to state operations from the proposed testing is unlikely.

We understand from Motorola's analysis that in the event vehicular repeaters were operated within approximately one mile of the proposed Schaumburg, Palatine, or Rolling Meadows LTE base sites, some interference may be experienced. However, as noted above, use of the vehicular repeaters in these particular areas is unlikely. We are also aware that low power LTE subscriber units will also be a part of the testing. However, the close proximity of vehicular repeaters to their associated narrowband portable radios should minimize the chance of potential interference from any LTE mobile/portable operations, even if vehicular repeaters were operated in the area.

We have discussed these issues with Motorola and concur interference is unlikely. However, in the event interference does occur, we expect Motorola to take immediate steps to eliminate the interference, and Motorola representatives have agreed to do so. Notably, Motorola operates the STARCOM21 system for the State of Illinois subject to prescribed quality requirements. As a result, we are confident that any unexpected conflicts that do arise between the proposed experimental testing and use of the STARCOM1 system will be addressed immediately.

In view of the above, the State of Illinois concurs with Motorola's proposed experimental STA for the Schaumburg and Palatine, Illinois areas to test LTE broadband technology in the 700 MHz band under the parameters noted above.

Respectfully,



Daniel C. Meseke  
STARCOM21 System Administrator  
Illinois State Police  
Communications Services Bureau