0204-EX-ST-2000 ORIGINAL

June 7, 2000

Federal Communications Commission
Experimental Radio Services
P.O. Box 358320
Pittsburgh, PA 15251-5320

Re: Revelation L.L.C. — Request for Special Temporary Authority Commencing June 19, 2000 for New Experimental Radio Authorization

Dear Sir/Madam:

Revelation L.L.C. ("Applicant") hereby submits for filing an original and one copy of a request for special temporary authority ("STA") pursuant to § 5.61 of the Commission's rules.

Applicant seeks STA to perform testing of radiofrequency identification ("RFID") technology. Applicant seeks STA commencing June 19, 2000 for a period of six months.

Applicant submits the following information in support of its STA request:

(1) Name and address, phone numbers:

Revelation L.L.C.
9 Walnut
Barrington, Illinois 60010
Attn: James R. Rapier
Phone: (630) 497-0700
Fax: (630) 497-0790
e-mail: revelatn@aol.com

(2) Description of why STA is needed:

Applicant proposes to conduct testing in connection with a potentially new radio service incorporating RFID operations. The transmitting equipment is experimental in nature. Further, experimental authority is requested for no longer than 6 months. Accordingly, Applicant seeks STA to conduct RFID testing as described herein.

(3) Description of the operation to be conducted and its purpose:

The proposed RFID operations would consist of multiple temporary fixed base stations ("interrogators") and fixed and mobile transponders ("tags" affixed to various articles, such as

inventory or dangerous substances). The interrogators would transmit a signal designed to identify the presence and status of the tags. The tags will be located no more than 90 meters from the interrogator. The tags do not have separate power supplies or transmitters, but rather reflect the signal from the interrogator at low power levels back to the interrogator at the same frequency, along with information that is stored in the tag.

Prior to commencing operations, Applicant would contact ITA, a frequency coordinator, and obtain a listing of all co-channel licensed or applied-for stations. Applicant would then as necessary contact any such co-channel operators and obtain permission to conduct the experimental operations applied for herein.

The purpose of the experimentation is to conduct research on the identification of thousands of tagged articles at one time, large numbers of identically encoded tags at one time, the identification of tagged articles located at great distances (but no farther than 90 meters) and without batteries or other power supply, the effects of reflections, orientation, moisture, and motion in conjunction with the use of various antennae, the nulls and phase cancellations that may be encountered with the identification of articles located at great distances, and the networking of RFID systems in large areas.

In addition, tests would include the effects of time delays, networks, locations of associated databases, display overload characteristics, as well as the ability to triangulate and/or measure time delays for purposes of locating a specific transponder.

Applicant would also undertake to determine survivability of interrogators and transponders, and especially specific failure mechanisms and combinations of mechanisms that would cause the system to not be able to read a transponder in worst-case conditions.

There presently is no cost-effective way to quickly investigate the presence of items located in large volumes of space and over long distances. The proposed experimentation would contribute to the development of the radio art by developing a viable RFID system that can provide for safety, security, and control, using relatively low power levels.

(4) Time and date of proposed operation:

Testing would commence June 19, 2000, and will ordinarily occur during normal business hours.

(5) Classes of stations:

The proposed operations would consist of temporary fixed base stations ("interrogators") and fixed and mobile transponders ("tags").

(6) Description of location of the proposed operation:

Authority is sought on a nationwide basis. Testing would occur in a variety of environments, including open fields as well as at business/industrial facilities (both indoor and outdoor). As outlined above, Applicant would take all steps necessary to ensure that permission is obtained from any licensed co-channel operator prior to conducting any testing.

(7) Equipment to be used, including name of manufacturer, model and number of units:

Interrogators:

Manufacturer:	Revelation L.L.C.
Model Number:	(Experimental)
Number of units:	12 total, 1-2 in any particular deployment

Transponders:

Manufacturer:	Revelation L.L.C.
Model Number:	(Experimental)
Number of units:	900 total

(8) Frequency desired:

928.5 MHz

(9) Maximum effective radiated power (ERP):

Interrogator ERP will be 50 watts. Transponders will reflect at 20 mW (max).

(10) Emission:

The emission is both continuous wave and amplitude modulated. The signal is characterized by ramped amplitude and periodic operation, and in the process of detecting transponders, the signal is either modulated or continuous wave. The bandwidth is 20 kHz.

(11) Overall height of antenna structure above ground:

The interrogator antenna will always be less than 6 meters above ground level. Thus, no FAA issues are involved.

Applicant certifies that neither the applicant nor any party to the application is subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862.

This STA request is accompanied by an FCC Form 159 and a check made payable to the Federal Communications Commission for $45.00 (Fee Code EAE) for the prescribed filing fee.

Should you have any questions regarding this matter, please contact Jeffrey S. Cohen, Wilkinson Barker Knauer, LLP, 2300 N Street, N.W., Suite 700, Washington, D.C. 20037-1128, (202) 783-4141.

Sincerely,

Revelation L.L.C.

James R. Rapier
President

Enclosures

cc: Mr. Carl Huie, FCC