0004-EX-ST-1999

Request for Special Temporary Authorization

Advanced Fibre Communications, Inc.
1 Willowbrook Ct.
Petaluma, CA 94954

Need for special action:

The Advanced Research & Development group at AFC is currently in the final stages of the development of a new wireless local loop (WLL) access system. The system is based on the DECT standard as outlined in ETS300-175. AFC wishes to perform some basic system and design verification tests at AFC's North Petaluma campus before exporting units for field trials.

Type of operation to be conducted:

A wireless base station will be installed at AFC's facility located at 1 Willowbrook Ct. The base station will use an omni-directional antenna employing right-hand circular polarization with a gain of 6 dBi. A total of four home terminals will be installed in other buildings on the AFC campus. Each home terminal will be attached to a right-hand circularly-polarized patch antenna with 8 dBi of gain.

Purpose of the operation:

AFC intends to verify the operation of the DECT radio in a real-world environment. These tests will concentrate on problems in the air segment. AFC intends to test new methods intended to combat degradation caused by multipath propagation. This problem plagues many existing fixed wireless access products.

Time and date of proposed operation:

The operation would be turned up after notification from the FCC regarding STA approval. The operation would last no longer than 6 months from the grant date.

Nature of service:

AFC employees will utilize the POTS lines provided by the system on an everyday basis. This is intended to assist in tracking down implementation problems which may not be evident in a laboratory environment.

Location of proposed operation:

AFC's North Petaluma Campus.

Equipment to be used:

AFC	DECT Base Station	8100-0176
AFC	DECT Home Terminal	8100-0144

Frequencies to be used:

The DECT radios will utilize frequencies between 1880 and 1900 MHz. RF channel bandwidth is 1.728 MHz. Only four channels in the 1880-1900 MHz will be used at any given time.

Effective radiated power:

AFC will reduce the maximum power output of the radio to help prevent possible interference with other services using the same frequency band. Maximum output power is normally +24 dBm at the antenna connector, this level will be reduced to +14 dBm by adding attenuators to the antenna lead on each radio (both base station and home terminals).

This will result in a system with the following EIRP's,

Base Station:	+20 dBm max. (100 mW)
Home Terminal:	+22 dBm max. (160 mW)

Emission Type:

Complies with DECT standard (ETS300-172-2).

Height of Antenna Structure:

< 6 meters AGL.

AFC®
ADVANCED FIBRE COMMUNICATIONS

December 15, 1998

Federal Communications Commission
Experimental Licensing Branch
2000 M Street, N.W., Suite 230
Washington, D.C.

Attn: Nancy Hey

Re: NH, Rm 264-A, MS 1300-E1

Please accept the attached request for experimental authorization application with its original signature by our VP and CTO of Advanced Fibre Communications, Inc.

Thank you for your response and help in processing this request.

Sincerely

Scott Pradels
Engineer
Advanced Research & Development

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http://www.fibre.com

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12-15-98

John W. Webely, VP/CTO — Date
Advanced Fibre Communications, Inc.