S-3381-EX-1998

TIME DOMAIN

6700 ODYSSEY DRIVE, HUNTSVILLE, AL 35806
TELEPHONE: (205) 922-9229
FACSIMILE: (205) 922-0387

April 30, 1998

VIA OVER NIGHT DELIVERY
SENT THROUGH PITTSBURG

Mr. Paul Marrangoni
Chief, Frequency Liaison
Office of Engineering and Technology
Federal Communications Commission
2000 M Street, NW, Room 7322
Washington, D.C. 20554

Care Of:

Mellon Bank
Three Mellon Bank Center
525 William Penn Way
27th Floor, Room 15333-2713
Pittsburgh, PA 15259-0001

ATTN: Federal Communications Commission Lockbox Shift Supervisor

RE: Request for Special Temporary Authority

Dear Mr. Marrangoni:

Pursuant to section 5.56 of the Commission's rules, 47 C.F.R. §5.56 (1992), Time Domain Corporation requests a Special Temporary Authority.

In accordance with the FCC's Fee Schedule (Fee Code EAE), a check for $45 is enclosed, as well as FCC form 159.

In support of this request, the following is shown:

1) Applicant's Name and Address:

- Time Domain Corporation. (Previously Time Domain Systems, Inc.)
  Suite 100, 6700 Odyssey Drive
  Huntsville, AL 35806
  Contact: Paul Withington
  Telephone: (205) 922-0384

2) Need for Special Action:

- The Communications Sciences Institute at the University of Southern California (Prof. R. A. Scholtz) and the U.S Army Research Office, Research Triangle (Dr. James A. Freebersyser) are sponsoring a Ultra-wideband Radio Techniques Workshop in Solvang, California on **May 25th through May 28th.** Time Domain has been invited to demonstrate its time modulated ultra-wideband prototype radios and radars. Time Domain requests an STA for the duration of this workshop.

3) Type of Operation

- Temporary, fixed, and portable

4) Purpose of Operation:

- Demonstration for a conference on ultra-wideband radio technologies.

5) Date of Operation:

- **May 25 to May 28, 1998**

6) Class of Station:

- Experimental

7) Location of Proposed Operation:

- Within a five miles of 34° 36.41' N and 120° 4.53' W. (Near Solvang, California.)

8) Equipment to be Used:

- Custom fabricated ultra-wideband impulse radio

9) Frequencies Desired:

Application	Frequency	Authorized Power
Short Range Radar	2 GHz ± 1 GHz	2.0 mW
Communications	2 GHz ± 1 GHz	2.0 mW

10) Effective Radiated Power:

- Not to exceed

  For 2 GHz radar systems: < 3.5 mW

  For 2 GHz communications system: < 3.5 mW

11) Transmitter Power:

- 2.5 mW

12) Type of Emission:

- A series of ultra-wideband RF pulses varied in time by a pseudo-random and pure random time hopping sequences. Ultra-wideband signals have relative bandwidths in excess of 25% of the center frequency (IEEE definition). Time Domain typically uses signal with relative RF bandwidths greater than 75%. The pseudo-random and pure random time hopping randomizes the signal in both the time and frequency domains, so that it has the appearance of white noise. There is no emissions designator for these types of signals.

13) Antenna Height: <10 feet AGL

In accordance with Section 1.2002 (1993), Time Domain Corporation hereby certifies that it, its officers and directors, and any party with a 5 percent or greater interest in this request for special temporary authority is not subject to a denial of the Federal benefits requested herein pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. §853 (a).

TDC will take great care to ensure that harmful interference does not occur.

Please note: Time Domain has a STA for its Huntsville site; call sign: WA2XIZ.

2820-97

Yours truly,

Paul Withington

Paul Withington
Vice President