

Time Domain Corporation
Experimental STA Request
September 6, 2001
File No. 0319-EX-ST-2001

Exhibit 1

Signal Description

This request seeks authority to demonstrate prototype equipment that uses the “time modulated” ultra wideband (UWB) technology developed by Time Domain Corporation (“Time Domain”). The device to be demonstrated is a PulsON™ Application Demonstrator (PAD), which is a laboratory evaluation device that is a test device only and is not to be marketed. The other device to be demonstrated is a field disturbance sensor, the RadarVision™. This device generates a signal that is unmodulated in the sense that it does not convey information. The device is used to determine the presence of persons behind walls. It was the subject of a limited waiver granted by the Office of Engineering and Technology. See Letter of June 29, 1999, from Dale Hatfield, to David Hilliard, Counsel for Time Domain. See Exhibit 3 of this request. The position of the unmodulated pulse employed by the PAD and the RadarVision™ is varied in time so as to produce a spectrum that approximates gaussian noise. If an emission designator were to be applied to this device, Time Domain believes that 2G00P0N would be descriptive of the signal. The nominal center frequency of the signal is 2.0 GHz. The radiated power is below the Part 15 general limits. For the purpose of this STA, it should be specified as < -73 dBW/MHz. The total radiated power is 36 microwatts EIRP.

The transmitter and antenna to be used for the RadarVision™ is that which was approved under FCC ID NUF-CW, except that this demonstration equipment does not contain a deadman’s switch. The equipment does, however, include a timer that limits transmit time to a maximum of 20 minutes. The PAD will use an omni-directional Time Domain Diamond dipole antenna. Note that this antenna has virtually no gain across the spectrum of the transmitted signal, unlike a classic reference dipole designed for narrowband operation.