Time Domain Corporation
Experimental STA Request
September 10, 1999
File No. 0286-EX-ST-1999

Exhibit 1
Modulating 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"). One of the devices 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 basis pursuant to waiver granted by the Office of Engineering and Technology. See letter of June 29, 199, from Dale Hatfield, to David Hilliard, Counsel for Time Domain. This STA request is being filed in order to facilitate the frequency coordination of the demonstration. See Exhibit 3 of this request. The position of the unmodulated pulse employed by the RadarVision™ is varied in time so as to produce a spectrum that approximate 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 < -71 dBW/MHz.

Time Domain also proposes to demonstrate a prototype of another device that will include a video signal produced by a television camera as the source of the modulating signal. The same sort of pulse position modulation used to generate the noiselike signal described above will be used to encode information into the transmitted signal. The signal, however, will still approximate guassian noise. For the purposes of this STA request, Time Domain believes the emission designator would be 2G00M1F. The radiated power would also be below the Part 15 general limits and should be specified as < -71 dBW/MHz.