Applied Research Laboratories,
The University of Texas at Austin
Experimental STA Request
8 November 2000
File No. STA-UWB-001

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 devices to be exercised are two Pulson Application Demonstrators (PAD) and twenty UWB signal generators. The PAD and UWB signal generator are laboratory demonstrator/validator devices that are test devices only and are not marketable products. These devices will be used, during conducted and radiated testing, to aid in determining the compatibility of GPS with UWB technology. This testing is in support of gathering test data for the FCC as called out in the Notice of Proposed Rule Making FCC 00-163 released May 11, 2000.

These devices generate a signal that is unmodulated in the sense that it does not convey information. The position of the unmodulated pulse employed by these devices varies randomly 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 of each device is below the Part 15 general limits. For the purpose of this STA, the power density per device should be specified as < 173 dBW/MHz. The total radiated power per device is 36 microwatts EIRP.

Both the PADs and UWB signal generators will use the omni-directional TDC Diamond dipole antenna.