



0528-EX-ST-2000

9 November 2000

Federal Communications Commission
445 12th St. SW
Washington DC 20554

Dear Sirs,

We are requesting a temporary license to conduct radio channel experiments in the 5.15GHz to 5.35GHz and 5.725GHz to 5.825GHz bands. The purpose of the experiment is to determine delay spreads in an urban environment and how those spreads affect the quality of service of data links operating in the U-NII bands. The equipment will consist of a fixed location spread-sequence transmitter transmitting a pseudo-random sequence of up to 100 Mchip/s at a power level of up to of 20 Watts ERP (with a resulting power-spectral density of -40dBm/Hz at the antenna) and a mobile receiver that will collect the spread signal for later analysis. The transmitter location will be on the roof of our corporate building. The buildings' latitude and longitude are: $42^{\circ} 03' 44''$ N, $88^{\circ} 03' 08''$ W, with a roof elevation of 253 meters ASL. The receiver will be mounted in a van with a roof-top antenna. The antenna pattern of the transmitter is selectable between omni-directional and 60 degree sector. The hours of operation are variable, and will be set to help minimize any potential interference. The length of the test will encompass one (1) year to assess climatic influences on the radio channel.

I believe that this information should provide all that is needed for a temporary authorization. If any additional input is required, please do not hesitate to contact me at (847) 538-1356.

Thank you very much.

A handwritten signature in cursive script, appearing to read 'John Ley'.

John Ley
Senior Staff Engineer
Technology Outlook Lab

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