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Systems Division

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APR 22 1996

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April 3, 1996

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Mr. William Caton  
The Secretary  
Federal Communications Commission  
Washington, D.C. 20554

Re: Request for Rule Making by Apple Computer, Inc.  
RM 8653

Dear Mr. Caton:

Apple Computer has petitioned the Federal Communications Commission (FCC) to issue a revision to the FCC rules that would allow the operation of ultra-wideband, high performance radio local area networks ("HIPERLAN's") in the frequency band between 5725 MHz and 5875 MHz (Petition For Rulemaking "NII Band", RM 8653). The petition calls for two operational modes: intra-building systems and inter-building connectors, operating at higher power levels that would allow operating over distances up to 10-15 km. In addition, the NII Band technologies would operate in protected spectrum based on a "new Part 16 paradigm" and thus would have higher status and greater interference protection than Part 15 devices.

Intelligent Transport Systems (ITS) is a cooperative, national effort which involves Federal and State agencies, private industry and academia. The results of this cooperative effort is a list of Direct Short Range Communication services which are presently in various stages of commercial development for the 5850 MHz - 5925 MHz band. These Direct Short Range Communication (DSRC) services have a sizable commercial potential, but most importantly a significant impact on both personal and public safety.

Although DSRC systems generally operate over small distances (less than 100 meters), they are both mobile and stationary radio service. For example, mobile readers may be used at random locations for verification of proper electronic credentials by law enforcement officials. Stationary electronic sign beacons for in-vehicles signing will be placed along urban, suburban or rural roadways to inform drivers of upcoming hazards and to assist them in their driving task. These and many other DSRC services have to perform at a high reliability since they impact significantly the public and personal safety.

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The Apple Petition proposes the creation of an unlicensed community network with microwave communication distances of 10-15 km. The power levels necessary to obtain the 15 km communication range is expected to result in interference to DSRC services within the band and, in the absence of technical information, most likely for out-of-band services as well. The in-building HIPERLAN, conceivably operating at lower power levels than the community network, has communication distances similar to those for the DSRC services. Thus, interference from the in-building HIPERLAN is likely especially in urban and suburban areas. In summary, the proposed "NII-Band" is expected to cause harmful interference to the ITS DSRC services. This interference will reduce its reliability and impact significantly public and personal safety.

Wideband wireless local area networks are of commercial and public interest. The WINForum Petition (RM 8648) will satisfactorily achieve the purpose of the HIPERLAN at the European frequency of 5100 MHz - 5350 MHz.

Should you have any questions regarding this submittal, please contact Mr. Charles Sprado at 612-736-3187.

Sincerely yours,



C. G. Sprado  
Director  
ITS Project/3M