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February 13, 1997

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FEDERAL COMMUNICATIONS COMMISSION

**By Hand**

Mr. William Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

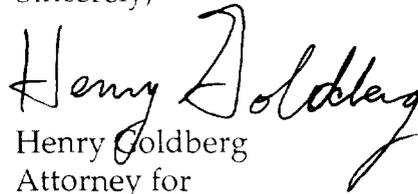
Re: *Ex Parte* Notification  
ET Docket No. 96-102 and  
ET Docket No. 96-8

Dear Mr. Secretary:

On February 13, 1997, Apple Computer, Inc., delivered the attached letter, which pertains to the above-referenced proceedings, to Mr. Richard M. Smith, Chief of the Office of Engineering and Technology. In accordance with Section 1.206 of the Commission's Rules, submitted herewith are two copies of the subject letter.

Please direct any questions regarding this matter to the undersigned.

Sincerely,



Henry Goldberg  
Attorney for  
Apple Computer, Inc.

cc: Hon. Reed E. Hundt  
Hon. James H. Quello  
Hon. Rachelle B. Chong  
Hon. Susan Ness  
Mr. Richard Parlow

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February 13, 1997

**By Hand**

Mr. Richard M. Smith  
Chief, Office of Engineering and Technology  
Federal Communications Commission  
2000 M Street, N.W.  
Room 412  
Washington, D.C. 20036

Re: ET Docket No. 96-102 and  
ET Docket No. 96-8

Dear Mr. Smith:

As we discussed in our recent meeting regarding the Commission's Report and Order ("R&O") in ET Docket No. 96-102, Apple Computer, Inc. ("Apple") is requesting that the Commission expedite its consideration of directional antennas for transmitters using the uppermost portion (5.725-5.825 GHz) of the Unlicensed National Information Infrastructure ("U-NII") band.

In the R&O, the Commission recognized that community networks will help meet the communications needs of educational institutions, libraries, health care providers, and others.<sup>1</sup> Moreover, the FCC noted that in the uppermost U-NII band, spread spectrum Part 15 devices already are authorized to operate with peak transmitter output power of 1 watt, using transmitting antennas with up to 6 dBi directional gain.<sup>2</sup> The Commission adopted similar power and antenna gain limits for U-NII devices operating in the 5.725-5.825 GHz band, in the belief that it made possible U-NII community networks with a typical range of "several kilometers" and with a greater range "in areas with a low interference environment."<sup>3</sup>

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<sup>1</sup> R&O at ¶ 18.

<sup>2</sup> R&O at ¶ 46.

<sup>3</sup> Id.

As further noted in the R&O, the Commission is considering in ET Docket No. 96-8 whether to permit Part 15 spread spectrum systems operating in the 5.725-5.850 GHz band to use transmitting antennas with higher directional gain.<sup>4</sup> The Commission stated in the R&O that, if it decides in ET Docket No. 96-8 to permit the use of higher gain directional transmitting antennas for spread spectrum operations, it may consider similar action for U-NII devices in a separate rulemaking.<sup>5</sup>

Apple urges the Commission to consider in tandem, rather than seriatim, whether to increase the permitted antenna gain for both spread spectrum and U-NII systems. Were the Commission to proceed as discussed in the R&O — first deciding whether to increase antenna gain for spread spectrum systems, and only then deciding whether to increase antenna gain for U-NII systems — its process would delay unnecessarily the potential introduction of beneficial longer range U-NII devices.

There are compelling policy reasons supporting simultaneous consideration of the permissible antenna gain for spread spectrum and U-NII devices. Indeed, Apple first made note of the interplay between the spread spectrum and U-NII proceedings seven months ago when it filed comments in ET Docket No. 96-9.<sup>6</sup>

First, the core question of whether the use of more highly directional antennas will cause, or even reduce, objectionable interference to others sharing the 5.725-5.850 GHz band can best be addressed if all relevant attributes of both spread spectrum and U-NII devices are “on the table” at the same time. Unlike spread spectrum devices complying with Section 15.247, the permitted power spectral density of U-NII band devices is strictly limited.

Second, several commenters in this proceeding — including WINForum, Microsoft, and Motorola — already have addressed why the Commission should adopt and maintain parallel rules for spread spectrum and U-NII devices operating in the 5.725-5.825 GHz band.<sup>7</sup> Moreover, the record in this proceeding contains an extensive discussion of the need for

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<sup>4</sup> R&O at ¶ 47.

<sup>5</sup> Id.

<sup>6</sup> Comments of Apple Computer, Inc., ET Docket No. 96-9, at 1-2.

<sup>7</sup> Comments of Microsoft at 3-4, 5-6; Comments of Motorola at 8-9; Comments of WINForum at 24; Reply Comments of WINForum at 17.

Mr. Richard M. Smith  
February 13, 1997  
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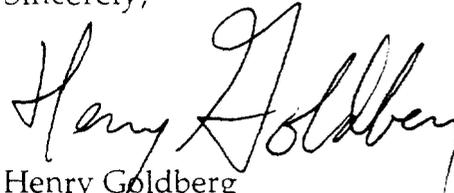
longer distance community networks and the potential for interference between U-NII systems that employ directional antennas, and other users of the 5.725-5.825 GHz band.

As a result, there is no need to start a new proceeding, or to defer consideration of whether to permit higher gain antennas for U-NII devices until after a decision has been issued in the spread spectrum proceeding. At most, the Commission promptly should request additional comment on the narrow question of whether the U-NII band rules should be made consistent with any change to the spread spectrum rules. Any other approach would force parties to duplicate in a new proceeding much of the record that already exists in this proceeding, thereby wasting the Commission's resources and those of the public, as well as effectively guarantee that the introduction of longer range U-NII devices would be delayed by a year or more.

For all of the above reasons, Apple urges the Commission to reach a decision regarding the use of higher gain transmit antennas by all 5 GHz unlicensed devices at the same time, rather than needlessly segregating consideration of this issue into two sequential proceedings.

Please direct any questions regarding this matter to the undersigned.

Sincerely,



Henry Goldberg  
Attorney for  
Apple Computer, Inc.

cc: Hon. Reed E. Hundt  
Hon. James H. Quello  
Hon. Rachele B. Chong  
Hon. Susan Ness  
Mr. Richard Parlow