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August 12, 1996

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BY HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Re: Petition for Rulemaking
DSC Communications Corporation
RM - 8837
Comments of 3Com Corporation

Dear Mr. Caton:

Transmitted herewith on behalf of 3Com Corporation ("3Com") are an original and nine (9) copies of its Comments in the above-referenced proceeding. 3Com opposes the request of DSC Communications Corporation for reallocation of portions of the 2.4 GHz band, a band currently used by unlicensed devices, including wireless local area networks.

Should any questions arise concerning these Comments, please contact the undersigned.

Very truly yours,

FLETCHER, HEALD & HILDRETH, P.L.C.



Kathryn A. Kleiman
Counsel for 3Com Corporation

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Enclosures

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BEFORE THE

Federal Communications Commission

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AUG 12 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)	
)	
Petition for Allocation of Radio Spectrum)	RM - 8837
in the 2 GHz Band for the Provision)	
of Wireless Fixed Access Local Loop Services)	

TO: The Commission

COMMENTS OF 3COM CORPORATION

I. Introduction

Pursuant to Section 1.405 of the Commission's Rules, 3Com Corporation ("3Com") hereby submits its comments in response to the *Petition for Rulemaking* ("*Petition*"), RM-8837, filed by DSC Communications Corporation ("DSC") requesting allocation of radio spectrum in the 2 GHz band for the provision of wireless fixed access local loop services.

In this *Petition*, DSC has requested that the Commission allocate large portions of the 2.4 GHz band for wireless local loop licensing. 3Com asks that the Commission, with respect to the 2400-2483.5 MHz band, reject DSC's request and preserve this band for the innovative and much-needed unlicensed services now being offered, including wireless local area networks ("WLAN"). The Commission should reaffirm its decision in the *Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, First Report and Order*, ET Docket No. 94-32, 10 FCC Rcd 4769

(1995) ("*Below 5GHz Proceeding*"), where it rejected calls to reallocate a much smaller portion of the 2400-2483.5 MHz band because of the interference it would cause to unlicensed WLAN devices. The eleven channels which DSC wishes the Commission to allocate in the 2.4 GHz band would introduce much greater interference to the WLAN systems and put at risk the future of unlicensed wireless links to computer networks, particularly low-cost network access for schools and libraries.

II. **The Spectrum Requested by DSC in its Channel Plans E and F would Result in Significant Interference to the Spread Spectrum WLAN Systems Now Being Developed and Deployed.**

In its *Petition for Rulemaking*, DSC requests that spectrum be reallocated for wireless local loop technology from the 1.3 - 2.7 GHz band. The *Petition* sets out five spectrum allocation plans, and two of these plans call for the reallocation of 2.4 GHz spectrum in which ISM and Part 15 devices currently operate:

(E) 2400.0 - 2438.5/ 2160.0 - 2198.5 MHz, and

(F) 2401.0 - 2439.5/ 2310.0 - 2348.5 MHz.

Proposal, p. iv. See also, pp. 32-33. Under the DSC Plan, the spectrum would be channelized to provide 11 uplink and 11 downlink channels and provide for a transmission power of at least 0.5 Watt.

3Com is one of the world's largest data networking companies, and a developer of the wireless local area network technology that will be deployed in the 2400-2483.5 MHz band. The WLAN technology, authorized by Part 15.247 of the Commission's rules, operates on the principle of spread spectrum in which large amounts of data are transferred at very high rates of speed by scattering the information over a very broad band. Removal of access to even a small portion of the spectrum would result in significant reductions in the capacity of the network, specifically in the speed of transmission, and lead to increases in the bit error rate and retransmission requirements. Allocation of the requested 38.5 megahertz would likely result in the significant degradation of WLAN systems.

III. **In the Below 5 GHz Proceeding, the Commission was Very Pleased with the Promise of WLAN Technology for Schools, Libraries and the Public.**

The *Report and Order* issued by the Commission in the *Below 5 GHz Proceeding* speaks for itself in its resounding support for using the 2.4 GHz band to serve the public interest by providing low-cost, high-speed unlicensed wireless local area network technology to schools, libraries and the general public:

These and other applications of technologies implemented through Part 15 devices have the potential to benefit virtually every person and business in the nation, as well as to promote American competitiveness abroad. *Below 5 GHz Proceeding*, 9 FCC Rcd at 4786.

Further, the Commission offered the following strong rationale for its protection of the unlicensed Part 15 spread spectrum devices:

These Part 15 devices provide a variety of consumer and business oriented services that benefit individuals, commercial services, and private spectrum users, and they also have applications for public safety and medical needs. Benefits include lower costs of energy through automatic meter reading and optimized power generation, low-cost broadband access to Internet services and other information networks for schools, libraries, telecommuters and home offices, mobility of telephonic and computer communications within offices and homes without extensive reconstruction and wiring, immediately installable video conferencing among and between buildings for educational instruction, health care monitoring and judicial procedures without construction of special studio facilities, safe transport of chemicals and petroleum products through low-cost and easily deployable pipeline monitoring services, and control for potentially tens of thousands of traffic lights, at less than one-third the cost of wireline solutions, to ease road congestion, and significantly reduce pollution and new street construction. *Id.*

In the *Below 5 GHz Proceeding*, Congress and NTIA also stated their support for the development of WLAN technology and urged the FCC not to allow harmful interference to the WLAN operation.

IV. **Conclusion**

In reliance on the protection for the Part 15 WLAN technology provided by the Commission in the *Below 5 GHz Proceeding*, 3Com and other manufacturers have continued to invest heavily in the rapid development of WLAN technology. These technologies are being sold today and many new devices will be introduced over the next few years.

In light of its unequivocal support for the Part 15 WLAN development in the 2.4 GHz band during the *Below 5 GHz Proceedings*, the Commission should reject DSC's proposal to reallocate any portion of the 2400-2483.5 MHz band for licensed wireless local loop uses.

Respectfully submitted,

3COM CORPORATION

By: 
Frank R. Jazzo

By: 
Kathryn A. Kleiman

Its Attorneys

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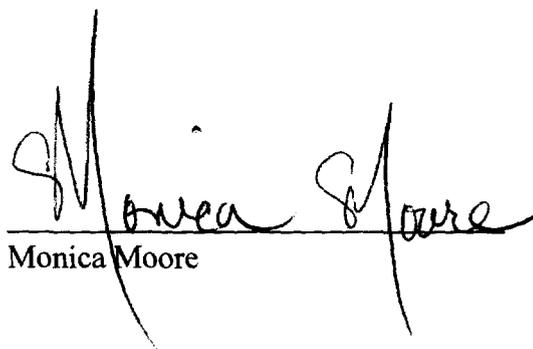
August 12, 1996

kk3b/p-dsc.wpd

CERTIFICATE OF SERVICE

I, Monica Moore, a secretary in the law firm of Fletcher, Heald & Hildreth, P.L.C., hereby certify that on this 12th day of August, 1996, a copy of the foregoing *Comments of 3Com Corporation* was sent via first-class mail, postage pre-paid, to the following:

Mr. James L. Donald
Chairman and CEO
DSC Communications Corporation
1000 Coit Road
Plano, TX 75075-5813



Monica Moore