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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

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

Re: ET Docket No. 94-124

Dear Mr. Caton:

This letter constitutes Reply Comments by the Harris Corporation-Farinon Division ("Harris") to Comments received by the Commission in the above cited Docket. Harris is interested in the proceeding involved in this Docket having participated both by submitting its own Comments and assisting in the preparation of Comments filed by the Fixed Point-to-Point Communication Section of the Telecommunications Industry Association (TIA).

Harris is a Florida corporation with its headquarters located in Melbourne, Florida. Through its Farinon Division, located in San Carlos, California, Harris designs, develops, and manufactures microwave and multiplex systems used by licensees in the terrestrial fixed microwave service. Harris is one of the largest suppliers of microwave equipments in the global market. As a leading manufacturer of equipment used in the terrestrial fixed services, Harris is interested in advancing the state-of -the-art in microwave technology and to maximize the use of frequency bands made available for the microwave services.

Through these Reply Comments Harris reiterates its support for proposals to use the 40.5-42.5 GHz band for LMDS applications in lieu of the 28 Hz band that has been considered heretofore (See comments of TIA, Hughes, and Teledesic). Harris continues to maintain that it was a basic error in planning to consider placing LMDS type operations as a substitute for the sharing of the band by traditional terrestrial fixed microwave and satellite operations, as foreseen by the ITU.

Today, demands for traditional terrestrial fixed microwave are so great that spectrum below 10 GHz has been reserved by the Commission for "long hop" systems. The result has

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been to promote the use of millimetric bands for all short distance links. As new operators and services come in, more point-to-point microwave spectrum is required to meet the need for low cost, high quality short haul communications.

Microwave point-to-point bands above 20 GHz are expected to support: the PCS implementation, the National Information Infrastructure implementation and, the more traditional applications of Private and Common Carrier users.

Since 1991 when Harris first petitioned the Commission for the channelization of the 28 GHz band to allow for point-to-point microwave use and equipment development, the company (Harris) has been nationally and internationally active to establish proper terrestrial fixed microwave bands between 23 and 60 GHz.

The Fixed Point-to-Point Communication Section, Network Equipment Division of TIA is filing Reply Comments separately on the present NPRM. These reply comments, which we enthusiastically support, include the establishment of a 50 and of a 55 GHz microwave band. They also advocate the use of the 40 GHz band for LMDS in order to free the 28 GHz for required microwave and satellite use. Such a move would provide the precious marketing and cost benefits that the use of worldwide duly recognized allocations can potentially give to US LMDS suppliers, satellite service suppliers and to US manufacturers and exporters of microwave equipment. As Hewlett-Packard mentioned in their comments (paragraph 2), "international coordination of regulatory efforts is mandatory from the point of view of American companies that wish to produce products for sale abroad." AT&T (page 5) added that "the Commission should do everything it can to achieve similar allocations of . . . spectrum internationally."

Adding to these latest TIA comments, Harris is in opposition to Cellularvision when they declare that "LMDS is not viable in the frequency bands above 40 GHz" (Appendix 2 of the January 30, 1995 comments from Cellularvision) and in particular in the 40.5-42.5 GHz band. On the contrary, all the contacts Harris has had with the British Radiocommunication Agency up to now indicate that MVDS operates well at 40 GHz and that the system there will soon enjoy all the benefits of the more recent and certainly more spectrum efficient digital technology (their second MVDS generation). Planned use of 0.5W¹ transmitter power and of 60 degree sector antennas at the base stations instead of indiscriminatory omnidirectional ones allows for wide service areas and good frequency reuse.

¹or -3dW, very far from the Commission assumption of -20dBW maximum power output. In the US, 40 GHz -10dBW or 0.1W solid state amplifiers are currently available from several sources. In their comments (paragraph 15), Hewlett-Packard stated that "solid state devices are available today that will provide powers of close to 1 watt at 40 GHz."

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Simply stated, it would seem that choosing a 28 GHz LMDS instead of a 40 GHz one will put the US in a technologic backseat. It will certainly have a negative impact on the US microwave industry which, in the last 4 years, has strived to establish needed frequency allocations in the 28, 37, 50 and 55 GHz bands for the further development of new product lines.

In conclusion Harris urges the Commission to proceed to Rulemaking on the basis of the Comments and Reply Comments filed by TIA. Adoption, in particular, of the 40.5-42.5 GHz band for LMDS operations is most strongly urged as it would permit the 28 Hz band to be used for traditional terrestrial fixed communications as was envisaged when the original allocation of the 27.5-29.5 GHz band was made.

Respectfully submitted,

HARRIS CORPORATION-FARINON
DIVISION

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