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June 7, 1996

HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

DOUBLE FILE COPY ORIGINAL

Re: **CC Docket No. 92-297**
28 GHz Band Plans

Dear Mr. Caton:

Texas Instruments, Inc., ("Texas Instruments") is writing to again express its views on several spectrum band plan options that have been, or are currently, under consideration by the Commission in this proceeding. On May 31, 1996, Texas Instruments described to the FCC its opposition to the economic realities and additional delay resulting from a band plan solution which relies on finding additional LMDS spectrum at 31 GHz.

Texas Instruments continues to support Option 4 Prime on the basis that LMDS return links would share the 29.24 - 29.375 GHz band with traditional GSO / FSS gateway terminals. It is not possible -- as was revealed as long ago as the Negotiated Rule Making Committee meetings in the summer of 1994 -- for ubiquitous satellite terminal uplinks, such as those proposed for the Ka band by Hughes Communications Galaxy, Inc., to share with LMDS systems. It cannot be disputed that the FCC intended, in the Option 4 Prime chart distributed several months ago, that GSO / FSS use of the 29.24 - 29.375 GHz band would be limited to traditional gateways.¹ Until last week, all subsequent discussions among the parties and with

¹ This chart, copy attached, clearly indicates, both in the table and in the notes below it, that the GSO systems in the 29.24 - 29.375 GHz band were to be limited to "gateways," in contrast to the near ubiquitous terminals which would operate in the 28.35 - 28.60 GHz and 28.375 - 30.0 GHz bands.

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the Commission were based on this premise. Texas Instruments urges the Commission not to be misled by parties who now claim that Option 4 Prime would include, or was ever intended to include, sharing between non-traditional GSO / FSS gateways and LMDS.

Option 1 -- which, in essence, was dismissed many months ago -- was cited again this week by several parties as a viable option. Texas Instruments urges the Commission to recall that this Option was dismissed for a very good reason: it simply would not support LMDS interactivity for, *e.g.*, telephony, Internet connectivity, and interactive television service in a consumer-oriented system. Not only would major components of LMDS service be made impractically expensive by a reversion to Option 1, but also auction prices would suffer. Option 1's new proponents appear to recognize the impracticality of Option 1 since they now refer to the need for Option 1 to be "supplemented by . . . interservice sharing rules. Thus, selecting Option 1 will not solve all of the Commission's spectrum sharing issues. Indeed, sharing criteria for the 29.1 - 29.25 GHz band have not yet been mutually agreed. Another, presumably lengthy, round of discussions between LMDS proponents and one of the MSS systems would definitely be required.

Of course, Texas Instruments recognizes that, by wasting 120 - 150 MHz of valuable spectrum in a guardband and using another 150 MHz of forward link spectrum for return links instead, LMDS return links technically could be accommodated between 27.5 - 28.35 GHz. The costs of pursuing this technical scenario within only 850 MHz, however, would be untenable. First, such inefficient use of spectrum would run contrary to the tenets of modern spectrum management which place a premium on technical efficiency and auction value; not only would this guard band spectrum be unusable, but LMDS licensees would have to pay for it in an auction. Second, the reduction of hub-to-subscriber spectrum likely would price LMDS systems out of consumer competition with other multichannel video service providers such as cable TV and DBS systems, including Hughes' DirecTV. Accordingly, interactivity would be sacrificed, and LMDS would be reduced to a uni-directional video system.

Before the FCC considers revisiting this counterproductive and costly Option 1, it should first reconsider Option 3 which, with the reasonable LMDS-MSS feeder link sharing criteria developed by Texas Instruments and TRW, Inc., would support viable satellite services and LMDS.

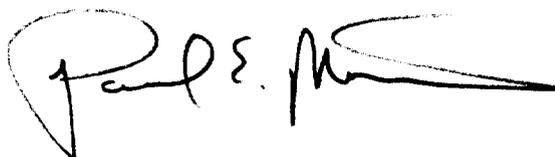
In sum, the competitive, spectrally efficient, and auction-enhancing interactive aspect of LMDS should not be summarily dismissed by ignoring the possibility of sharing with GSO / FSS gateways or MSS feeder links. While Options 4 Prime and 3 would spread the "pain" of frequency sharing among all the services including LMDS, Option 1 would inflict all of the pain on -- and cripple -- LMDS.

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As Texas Instruments has noted many times, LMDS is the only service proposed for the 28 GHz band which is ready for implementation now and is the only service which will bring any auction revenue to the U.S. Treasury.² In contrast, the proposed GSO / FSS systems in the band -- which range in certainty from questionable to highly speculative -- are not, even under their sponsors' plans, ready for service for several years and will not yield a dime in auction revenues, by virtue of the spectrum proposed for them and the orbital plan announced by the FCC.

Texas Instruments again urges the Commission to adopt Option 4 Prime and to proceed to immediate auction and implementation of LMDS. This brand new, technically advanced, interactive service and industry should not be smothered in order to warehouse free spectrum for the benefit of companies that will not use it for years, if at all.

Respectfully submitted,



Robert L. Pettit
Paul E. Misener
Counsel for Texas Instruments, Inc.

cc Chairman Reed E. Hundt
Commissioner James Quello
Commissioner Susan Ness
Commissioner Rachelle Chong

² As Texas Instruments has pointed out, Congress already has counted, for budget purposes, revenue anticipated from auctioning 2 GHz of LMDS spectrum. Senator McCain recently said, when introducing a budget resolution urging the FCC to act expeditiously and without further delay to conduct auctions, "The Commission's rulemaking proceeding on LMDS is over 3 years old. For 3 years, we have been waiting for auction revenues. . . . I would hope that the Commission move forward on those matters . . . and the FCC view this [resolution] as our imprimatur to move forward." *Congressional Record at S5424 (May 21, 1996).*

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