

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands)	WT Docket No. 03-66 RM-10586
)	
Part 1 of the Commission's Rules - Further Competitive Bidding Procedures)	WT Docket No. 03-67
)	
Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service to Engage in Fixed Two-Way Transmissions)	MM Docket No. 97-217
)	
Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico)	WT Docket No. 02-68 RM-9718
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REPLY COMMENTS OF AXCERA LLC

Axcera LLC ("Axcera") hereby submits its reply comments in response to the Commission's *Notice of Proposed Rulemaking* ("NPRM") in the matter stated above and to comments of others filed previously.

INTRODUCTION

Axcera is a major global supplier of broadband wireless communications systems. From its founding as ITS Corporation in 1982, through operation as the Broadband

Wireless Group of ADC Telecommunications from 1996 to 2001, and now as Axcera, the company has been a prominent provider and innovator of complete MDS/MMDS/ITFS transmission systems. Axcera's product line includes Axity3G, an advanced, standards-based broadband wireless access solution powered by IPWireless technology. Axcera also manufactures a complete line of MDS/MMDS/ITFS transmission equipment and systems with hundreds of installations globally. Axcera is a long-term board member of the Wireless Communications Association International, Inc. ("WCA"), and has a strong history as a leader in developing and providing new technology to the markets it serves.

SUMMARY

Axcera fully supports the recommendations proposed by the WCA/NIA/CTN Coalition, which it believes best serves the market by balancing the needs of all stakeholders in the MMDS/ITFS industry on various fronts. Axcera believes that the future use of this spectrum band will be substantially broadband two-way communications, served by both TDD and FDD technologies. While proponents of one technology or the other may prefer a band plan that would be optimized to a specific technology, the proposed band plan was carefully designed to allow for the coexistence of both technologies. Additionally, the Coalition was well aware that existing high power video systems must also be able to coexist with the broadband two-way services. The proposal allows for the continued operation of these services, which are very important to many communities.

PROPOSED BAND PLAN

The use of broadband wireless communications systems in the MMDS band will be achieved with both TDD and FDD technologies. The decision as to which technology is used should be left to the operator, which will naturally be motivated by the needs of the market served – the Coalition proposal allows for this flexibility.

A TDD system is typically designed to operate best in a single, wider channel, while an FDD system requires a pair of narrower channels. In order to realize the greatest benefit from the TDD technologies, greater than 6 MHz of contiguous spectrum is required. To serve this purpose, the Coalition band plan proposes a reorganization of the current interleaved channel groups into contiguous groups. The current band configuration requires licensing agreements between license holders, a process that can be cumbersome, if not impossible in some cases, and is, in most cases, a detriment to the operator attempting to build a system. The Coalition proposal will allow license holders to deploy a market without requiring such agreements, thereby accelerating time to market.

An FDD system requires a substantial frequency separation between the channel pairs used for upstream and downstream transmissions. For this reason, the Coalition has proposed upper and lower bands that are separated by a mid band. This allows a license holder with channels in the upper and lower bands to easily deploy an FDD system, while giving the licensee with channels in only one band the opportunity to successfully deploy with a TDD system.

Furthermore, in order to utilize the available bandwidth in the most efficient manner possible, the Coalition has proposed that the mid band be used for high power video systems. This provides the necessary spectrum to allow the majority, if not all, of the current ITFS video systems to continue operation.

The provision of three separate bands also minimizes the need for the extensive guard bands, allowing the coexistence of all available technologies in all markets. This ensures that all interests are served, including those of the consumer.

CONCLUSION

Axcera believes that the Coalition proposal provides an effective compromise, allowing the coexistence of all technologies for two-way systems, while protecting existing operators of educational, commercial video and first generation two-way systems, and that the proposal should be adopted in its entirety.

Sincerely,

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