ABSTRACT

DESIGNING MMDS SYSTEMS FOR BROADBAND WIRELESS ACCESS
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With the recent adoption by the FCC of the Two-Way Order for MMDS and ITFS, the broadband wireless access capabilities of this 200 MHz of lower frequency spectrum can be realized. With a downstream throughput of up to 1 GB/s, many telecom operators are working on access systems in the 2.5 GHz range. This presentation will provide a framework for considering the capabilities and limitations of MMDS for broadband services and a methodology for system design. Such items as spectrum allocations, the applicable FCC Rules and Regulations, the design goals for an MMDS system (coverage, capacity, quality and cost) and the impacts of such items as modulation density, MAC layer, and duplexing methods will be explored. Finally, a MMDS system design case study will be reviewed.