

# Abstracts

## Digitizing Multichannel Video Signals for Lightwave Transmission

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*R.J. Green and Q. Pan. "Digitizing Multichannel Video Signals for Lightwave Transmission." 1996 Transactions on Microwave Theory and Techniques 44.7 (Jul. 1996, Part I [T-MTT]): 1041-1045.*

This paper presents a new approach to the design of lightwave multichannel CATV transmission systems using broadband digital coding to convert an all-analog multiplexed video signal to a string of pulses suitable for digital transmission. Four broadband coding methods have been discussed and compared, which are: uniform and optimal commanding PCM, as well as uniform and adaptive DM. The principle advantages of this approach include the benefits obtainable from digital transmission and also direct compatibility with current CATV networks. CNR limits have been investigated for all of these methods.

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