# Abstracts

## 37-GHz fiber-wireless system for distribution of broad-band signals

*Z. Ahmed, D. Novak, R.B. Waterhouse and Hai-Feng Liu. "37-GHz fiber-wireless system for distribution of broad-band signals." 1997 Transactions on Microwave Theory and Techniques 45.8 (Aug. 1997, Part II [T-MTT]): 1431-1435.*

We present a millimeter (mm)-wave fiber-wireless system suitable for the transport and distribution of broad-band signals. We show transmission over fiber and wireless distribution of subcarrier multiplexed amplitude-modulation vestigial-sideband (AM-VSB) video and a digital data stream at 37 GHz using optical carriers generated by a hybrid mode-locked laser (HMLL). We also present a simple model to characterize the effect of fiber chromatic dispersion on the transport of mm-wave modulated signals over fiber, and calculations show that by using an HMLL, broad-band signals can be transported successfully over fiber lengths greater than 150 km using subcarrier frequencies <1 GHz and more than 50 km for subcarrier frequencies <3 GHz.

❑ Return to main document.