Abstracts

Optical delivery of modulated millimetre-wave signals using free-running laser heterodyne with frequency drift cancellation

L.A. Johansson and A.J. Seeds. "Optical delivery of modulated millimetre-wave signals using free-running laser heterodyne with frequency drift cancellation." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 1695-1697 vol.3.

A new millimetre-wave over fibre architecture is proposed and demonstrated using remote cancellation of phase and frequency fluctuations of two-laser heterodyne. A 36 GHz millimetre-wave carrier is optically delivered with -85 dBc/Hz noise level at 10 kHz offset. The system is used to demonstrate transmission of a 68 Mbit/s BPSK modulated 36 GHz signal through 25 km standard single-mode fibre.

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