Abstracts

Wavelength reuse in the WDM optical interface of a millimeter-wave fiber-wireless antenna base station

A. Nirmalathas, D. Novak, C. Lim and R.B. Waterhouse. "Wavelength reuse in the WDM optical interface of a millimeter-wave fiber-wireless antenna base station." 2001 Transactions on Microwave Theory and Techniques 49.10 (Oct. 2001, Part II [T-MTT] (Special Issue on Microwave and Millimeter-Wave Photonics)): 2006-2012.

A novel technique for wavelength reuse has been proposed to simplify the upstream optical interface of an antenna base station in a millimeter-wave fiber-wireless system incorporating wavelength division multiplexing. This technique is based on recovering the optical carrier used in downstream signal transmission and reusing the same wavelength for upstream signal transmission. Two novel configurations for optical carrier recovery and wavelength reuse are proposed and demonstrated experimentally.

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