Title (en)
METHOD AND DEVICE FOR TUNABLE OPTICAL FILTERING

Title (de)
VERFAHREN UND SYSTEM FÜR ABSTIMMBARE OPTISCHE FILTERUNG

Title (fr)
PROCEDE ET DISPOSITIF DE FILTRAGE OPTIQUE ACCORDABLE

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Application
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Abstract (en)
[origin: WO2007074485A1] A method for filtering a WDM optical signal comprises: splitting said optical signal by way of an optical splitter (210) having an input port (212), a first output port (214), a second output port (216), wherein said optical signal is input at said input port (212) and a first portion of the optical signal is output at said first output port (214) and a second portion of said optical signal is output at the second output port (216), said first portion comprising the channels lying on a sub-grid of optical frequencies spaced by the double of the WDM frequency spacing; filtering a channel belonging to the first portion; and recombining said first portion and second filtered portion by way of an optical combiner (220) having a first input port (222), a second input port (224) and a respective output port (226; 228), wherein the filtered first portion is input at said first input port (222), the second portion is input at said second input port (224) and both the filtered first and the second portions are output at said respective output port (226; 228), wherein the optical splitter (210) and the optical combiner (220) comprise a respective resonator-loaded Mach-Zehnder Interferometer optically coupled to the respective ports (212, 214, 216, 222, 224, 226, 228) of the optical splitter and combiner (210, 220) wherein the free spectral range of the resonator (361) is equal to said frequency spacing. An optical device implementing the above method is also disclosed.

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