

Title (en)
LOW LOSS, OPTICAL ADD/DROP WDM NODE

Title (de)
OPTISCHER EINFÜGE-/AUSFÜGE-KNOTEN MIT NIEDRIGEN VERLUSTEN

Title (fr)
NOEUD OPTIQUE DE MULTIPLEXAGE PAR REPARTITION EN LONGUEUR D'ONDE D'ADDITION ET D'EXTRACTION A PERTE BASSE

Publication
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Application
EP 98920810 A 19980430

Priority

- SE 9800801 W 19980430
- SE 9701668 A 19970430

Abstract (en)
[origin: WO9849794A2] An add/drop (7) node for an optical fiber network of WDM type has preamplifiers (19, 21) connected to the input fibers (3, 11). Part of the incoming signal power is tapped off by means of drop couplers or splitters (47, 49) and the tapped-off power is provided to a demultiplexer (51) where WDM information channels to be extracted from the network in the node are separated from each other and then fed to opto-electrical receivers (15). WDM information channels to be added in the node from electro-optical transmitters (17) are first combined in a multiplexer (61), the resulting signal being provided to add couplers (57, 59) to which also the signals incoming to the node are provided so that a combined signal is obtained for transmission to the opposite side of the node (7). Channels are thus added in the node to channels passing substantially uninterruptedly through the node. In order to have a low attenuation of the passing signals, the power per channel in the added signal is given approximately the same level as the power of each passing channel by an optical amplifier (65, 67) arranged in the input line to the add coupler from the multiplexer (61). By this arrangement it is possible to maintain a low attenuation of the passing signals within the optical add/drop node, since no extra attenuating devices are needed for the light signal containing the passing channels. The signal to noise ratio of these channels can thus be kept high.

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Citation (search report)
See references of WO 9849794A2

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