

Title (en)

1+1 FAULT PROTECTION IN A NETWORK OF OPTICAL CROSS-CONNECT SWITCHING SYSTEMS

Title (de)

1+1 FEHLERSCHÜTZUNG IN EINEM NETZ VON OPTISCHER QUERVERBINDUNGS VERMITTLUNGSSYSTEME

Title (fr)

PROTECTION 1+1 DANS UN RESEAU DE SYSTEMES DE COMMUTATION A REPARTITEUR OPTIQUE

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Application

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- US 17009599 P 19991210
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Abstract (en)

[origin: WO0139413A2] The present invention provides methods, systems, and data communication networks for providing fault protection in an optical network. In one embodiment, the present invention includes a source node having an optical cross-connect switching system that has a source port card with a splitter to split an input optical signal into two similar optical signals. The two similar optical signals contain the same information. A source optical switching device switches one of the two similar optical signals to a first destination port card and onto an adjacent node and the other one of the similar optical signals to a second destination port card and onto a different adjacent node, respectively, such that the two similar optical signals are then diversely routed through the optical network. A destination node having an optical cross-connect switching system receives the two similar optical signals via first and second source port cards, respectively. The optical cross-connect switching system of the destination node includes a destination optical switching device to switch each of the two similar optical signals to a destination port card having a selector switch. The selector switch selects one of the available two similar optical signals, such that, if one of the diversely routed similar optical signals fails to reach the destination node, due to a fault in the optical network, the other one of the similar optical signals is still available. Thus, the same information is provided to the destination port card of the destination node and 1+1 optical fault protection is provided for the optical network.

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