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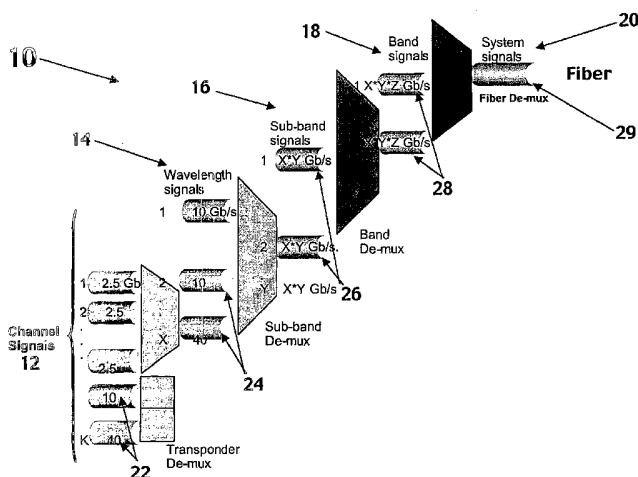
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[Continued on next page]

(54) Title: ARCHITECTURAL ARRANGEMENT FOR CORE OPTICAL NETWORKS



(57) Abstract: An architectural arrangement is provided for launching an optical system signal into an optical transport network, where the optical system signal is constituted in a layered membership relationship that defines at least two optical layers. The architectural arrangement includes a multiplexing component connected to an optical transport line residing in the optical transport network and a plurality of signal impairment compensation mechanisms associated with the multiplexing component. The multiplexing component is operable to receive a plurality of optical data signals therein, combine the plurality of optical data signals to form the optical system signal and launch the optical system signal into the optical transport line. The signal impairment compensation mechanisms are operable across each of the optical layers of the optical system signal to perform a signal impairment compensation operation on optical signal therein. The architectural arrangement enables manual routing and optical switching of transit network traffic at each optical layer of a network switching site residing in the optical transport network.



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(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>HARADA K ET AL: "HIERARCHICAL OPTICAL PATH CROSS-CONNECT SYSTEMS FOR LARGE SCALE WDMNETWORKS" OFC/IOOC '99 OPTICAL FIBER COMMUNICATION CONFERENCE / INTERNATIONAL CONFERENCE ON INTEGRATED OPTICS AND OPTICAL FIBER COMMUNICATION. SAN DIEGO, CA, FEB. 21 - 26, 1999, OPTICAL FIBER COMMUNICATION CONFERENCE / INTERNATIONAL CONFERENCE ON INTEGRATED OP, 21 February 1999 (1999-02-21), pages WM55-1-WM55-3, XP000966974 ISBN: 0-7803-5430-3 page 356, left-hand column, paragraph 1 -page 357, left-hand column, paragraph 3 page 358, left-hand column, paragraph 2 figures 1-4</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	1-26

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Patent family members are listed in annex.

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A	<p>WO 01 06682 A (SUMITOMO ELECTRIC INDUSTRIES) 25 January 2001 (2001-01-25)</p> <p>-& EP 1 202 479 A 2 May 2002 (2002-05-02) paragraph '0001! paragraph '0036! - paragraph '0039! paragraph '0041! - paragraph '0045! paragraph '0049! - paragraph '0052! paragraph '0054! paragraph '0110! - paragraph '0117! figures 1-3,16</p>	1-7, 9-11,17, 18
A	<p>JINNO M ET AL: "ULTRA-WIDE-BAND WDM NETWORKS AND SUPPORTING TECHNOLOGIES" PROCEEDINGS OF THE EUROPEAN CONFERENCE ON NETWORKS AND OPTICAL COMMUNICATIONS 1999. NOC'99. CORE NETWORKS AND NETWORK MANAGEMENT, AMSTERDAM: IOS PRESS, NL, vol. PART 2, 1999, pages 90-97, XP000829416 ISBN: 90-5199-497-4 page 92, paragraph 2 -page 95, paragraph 1</p>	1-11,17, 18
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Information on patent family members

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