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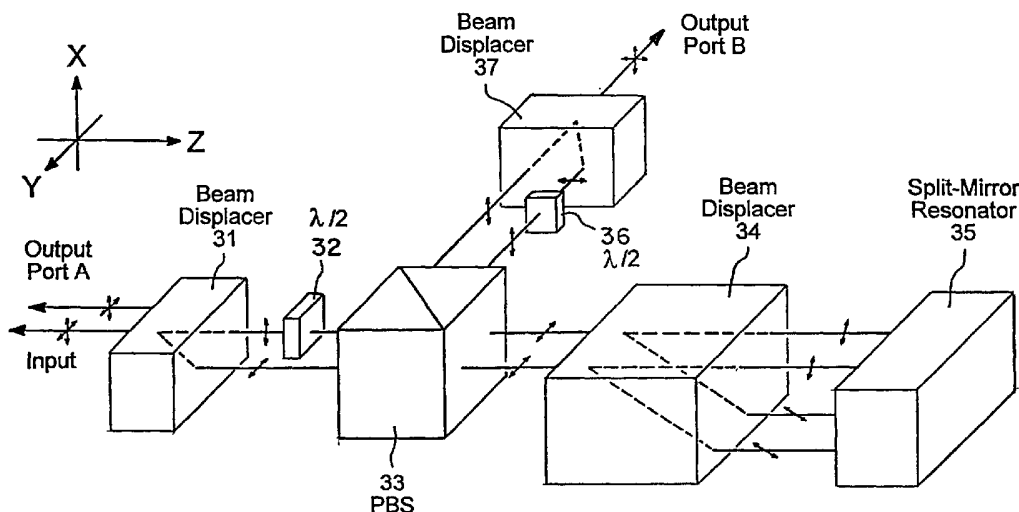
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[Continued on next page]

(54) Title: COMPACT TUNABLE OPTICAL WAVELENGTH INTERLEAVER



(57) Abstract: An optical wavelength router separates even and odd optical channels from an input WDM signal. The input beam is first converted into a pair of orthogonally-polarized beams. One of the beams is reflected by a mirror, while the other is reflected by a Fabry-Perot resonator (or etalon) (35). The group delay of the reflected beams is strongly dependent on wavelength. The beams reflected from the resonator and mirror are combined and interfere in a birefringent element (e.g., a beam displacer (34) or polarized beamsplitter) to produce a beam having mixed polarization as a function of wavelength. The polarized components of this beam are separated by a polarization-dependent routing element (33) to produce two output beams containing complementary subsets of the input optical spectrum (e.g., even optical channels are routed to output port A and odd optical channels are routed to output port B).

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Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

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IPC 7 G02B6/34 H04Q11/00 H04J14/02

According to International Patent Classification (IPC) or to both national classification and IPC

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, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 00 51247 A (AVANEX CORP) 31 August 2000 (2000-08-31) page 5 -page 10; figures 8-12 ---	1-38
A	DINGEL B B ET AL: "MULTIFUNCTION OPTICAL FILTER WITH A MICHELSON-GIRES-TOURNOIS INTERFEROMETER FOR WAVELENGTH-DIVISION-MULTIPLEXED NETWORK SYSTEM APPLICATIONS" OPTICS LETTERS, OPTICAL SOCIETY OF AMERICA, WASHINGTON, US, vol. 23, no. 14, 15 July 1998 (1998-07-15), pages 1099-1101, XP000783052 ISSN: 0146-9592 cited in the application the whole document --- -/--	1-38

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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- *&* document member of the same patent family

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONAL SEARCH REPORT
 information on patent family members

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