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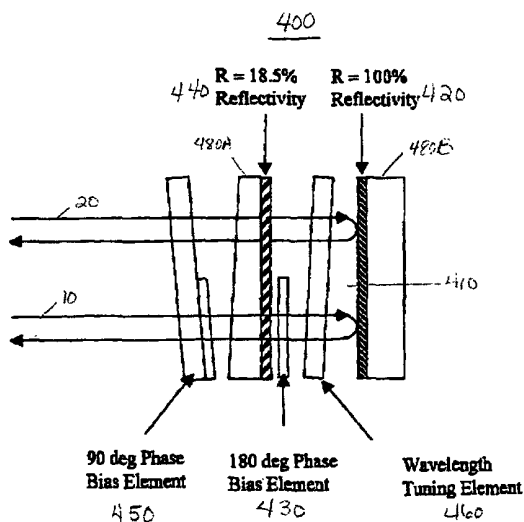
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(54) Title: INTERFEROMETER FOR MULTIPLEXER UTILIZING A PHASE DIFFERENTIAL METHOD



(57) Abstract: A nonlinear interferometer wavelength separation mechanism (400) for use in a dense wavelength division multiplexer is provided. The mechanism includes a first glass plate (480A) optically coupled to a second glass plate (480B), forming a space therebetween; a mechanism (430) for introducing a phase shift in at least one channel of an optical signal; and a mechanism (400) (420) for broadening a pass band of the optical signal. The nonlinear interferometer (400) of the present invention allows a dense wavelength division multiplexer to have an ease in alignment and a higher tolerance to drifts due to the increase in the width of the pass band. It also has the added ability of being passively stable to temperature.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :G01B 9/02
US CL :356/352; 359/577, 589; 385/24

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)

U.S. : 356/352; 359/577, 589; 385/24

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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- A	US 5,291,332 A (Siebert) 01 March 1994 (01.03.1994), entire document.	1 --- 2-25

Further documents are listed in the continuation of Box C.

See patent family annex.

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