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(54) **Title:** THERMALLY COMPENSATED ARRAYED WAVEGUIDE GRATING ASSEMBLIES

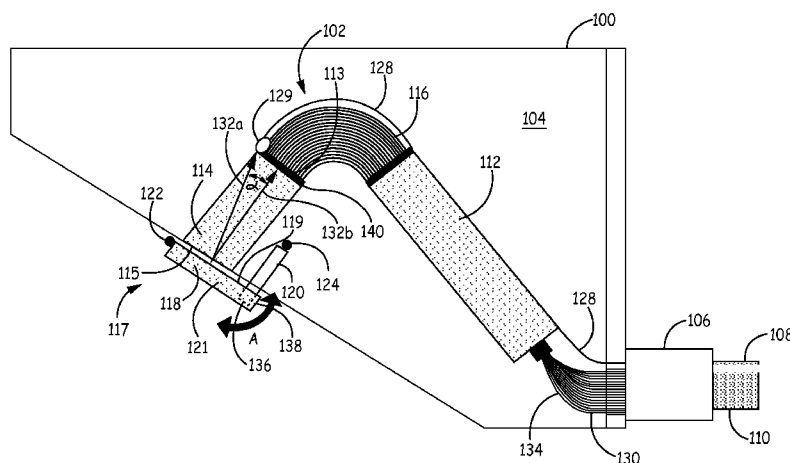


FIG. 1

(57) **Abstract:** Arrayed waveguide grating can have one or both slab waveguides with relatively sharply folded optical paths and a mirror that provides the folding of the path. The folded optical paths through the slab waveguides can result in a more compact geometry of the waveguides through the device as well as smaller slab waveguides such that the device can be formed with a significantly smaller overall footprint. Also, arrayed waveguide gratings that cooperate with pivotable mirrors can adjust light passage through the waveguide in response to temperature changes to provide for thermally compensated operation of the device. Thus, very compact planar lightwave circuits filters are described that provide thermally compensated operation.

A. CLASSIFICATION OF SUBJECT MATTER**G02B 6/12(2006.01)i**

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)

G02B 6/12; G02B 6/28; G02B 6/34; G02B 6/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: AWG, mirror, hinge, actuator, temperature, compensated

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004-0208417 A1 (KEN PURCHASE et al.) 21 October 2004 See abstract, paragraphs [0071], [0072] and figure 12.	1-31
A	US 2001-0033715 A1 (VINCENT DELISLE et al.) 25 October 2001 See abstract, paragraphs [0031], [0045], [0046] and figures 3, 9a.	1-31
A	JP 2002-258074 A (NIPPON TELEGR & TELEPH CORP. <NTT>) 11 September 2002 See abstract, paragraph [0019] and figures 1, 2.	1-31
A	US 2002-0097961 A1 (RUDOLF FEODOR KAZARINOV et al.) 25 July 2002 See abstract, paragraph [0028] and figure 1.	1-31



Further documents are listed in the continuation of Box C.



See patent family annex.

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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