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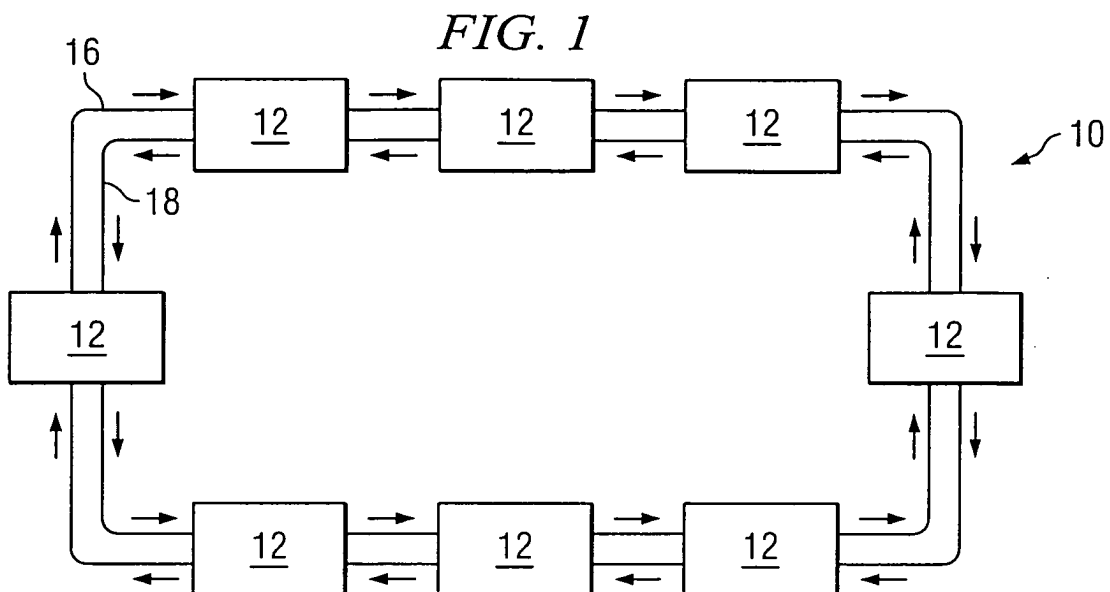
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(54) **Method and system for increasing network capacity in an optical network**

(57) An optical network includes an optical ring operable to communicate optical traffic and a plurality of nodes coupled to the optical ring. Each node is operable to passively add and drop one or more traffic streams to and from the optical ring. Each traffic stream comprises

at least one channel. The plurality of nodes comprise a hub node operable to selectively pass or terminate a plurality of individual sub-bands of the optical traffic and a plurality of sub-band nodes each operable to terminate a respective sub-band of the optical traffic.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	SHARMA M ET AL: "WDM RING NETWORK USING A CENTRALIZED MULTIWAVELENGTH LIGHT SOURCE AND ADD-DROP MULTIPLEXING FILTERS" JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE. NEW YORK, US, vol. 15, no. 6, June 1997 (1997-06), pages 917-929, XP000700600 ISSN: 0733-8724 * figure 2 * * pages 917,918 *	1,3-6, 16, 18-21, 23, 25-27, 35-46	H04J14/02
Y		7,22,28	
A		2,17,24	
X	----- US 2003/025961 A1 (WAY WINSTON) 6 February 2003 (2003-02-06) * figures 16,17,21-23 * * paragraphs [0079] - [0083] * * paragraphs [0086], [0087] *	1,2,5-7, 16,17, 20-24, 26-28, 35-37, 41-43	
A		3,4,18, 19,25, 38-40, 44-46	TECHNICAL FIELDS SEARCHED (IPC) H04J
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 September 2005	Examiner Petitit, N
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 6 198 556 B1 (MIZRAHI VICTOR) 6 March 2001 (2001-03-06) * figures 1,3,6,7 * * column 2, lines 38-53 * * column 2, line 63 - column 3, line 40 * * column 4, line 64 - column 5, line 11 *	1,3-5, 16, 18-20, 23,25, 26,35-46	
A		2,6,7, 17,21, 22,24, 27,28	
Y	----- US 5 726 785 A (CHAWKI ET AL) 10 March 1998 (1998-03-10) * figures 1,2 * * column 3, line 17 - column 6, line 49 * -----	7,22,28	
----- The present search report has been drawn up for all claims -----			
Place of search Munich		Date of completion of the search 23 September 2005	Examiner Petitit, N
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1 EPO FORM 1503 03.02 (P04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-7, 16-28, 35-46



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-7,16-28,35-46

The plurality of nodes in the ring network comprising a plurality of nodes each operable to terminate a respective sub-band of the optical traffic.

2. claims: 8-11,29-31

Node of the ring network also comprising an element operable to drop and continue optical traffic passing through the coupler node transport element.

3. claims: 12-15,32-34

Node of the ring network also comprising an element operable to terminate a respective sub-band of the optical traffic.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 04 02 5565

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on the European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

23-09-2005

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003025961	A1	06-02-2003	NONE

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			DE 69629741 T2 29-07-2004
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