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 WO200194998
 Temperature-compensated bulk diffraction grating for wavelength division multiplexer (wdm)

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 US6434299
 Wavelength division multiplexing/demultiplexing devices having concave diffraction gratings

 CONFLUENT PHOTONICS

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Temperature-compensated bulk diffraction grating for wavelength division multiplexer (wdm) WO200194998

<u>Patent Assignee</u> CONFLUENT PHOTONICS LIGHTCHIP	• Publication Information WO200194998 A2 2001-12-13 [WO200194998]
 Inventor ZHU NINGHUI TURNER IAN YUDIN YURI A SOKOLSKIY MIKHAIL N WADE ROBERT K International Patent Classification G02B-005/18 G02B-006/34 G02B-007/00 US Patent Classification PCLO=359576000 PCLX=359566000 PCLX=359569000 PCLX=359900000 CPC Code G02B-005/18/61; G02B-006/293/98; G02B-007/00/8; Y10S- 359/90 	 Priority Details 2000US-09587266 2000-06-05 2001WO-US17834 2001-06-01
• Fampat family WO200194998 A2 2001-12-13 CA2411467 A1 2001-12-13 AU6532001 A 2001-12-17 US6449097 B1 2002-09-10 WO200194998 A3 2003-03-13 EP1311888 A2 2003-05-21	[WO200194998] [CA2411467] [AU200165320] [US6449097] [WO200194998] [EP1311888]

Abstract:

(EP1311888)

An improved diffraction grating for wavelength division multiplexing/demultiplexing devices is disclosed. The improved diffraction grating has a glass substrate, a polymer grating layer located adjacent to the glass substrate, and a metal coating layer located adjacent to the polymer grating layer. The improvement comprises a polymer coating layer located adjacent to the metal coating layer, and a glass cover located adjacent to the polymer coating layer located adjacent to the polymer coating layer, wherein the polymer coating layer and the glass cover compensate for thermal characteristics associated with the polymer grating layer and the glass substrate, respectively. (From WO200194998 A3)

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Wavelength division multiplexing/demultiplexing devices having concave diffraction gratings US6434299

Patent Assignee CONFLUENT PHOTONICS	Publication Information US6434299 B1 2002-08-13 [US6434299]
 Inventor YUDIN YURI A SOKOLSKIY MIKHAIL N WADE ROBERT K International Patent Classification G02B-006/34 US Patent Classification PCLO=385037000 PCLX=385014000 PCLX=385024000	 Priority Details 1999US-09323094 1999-06-01 1999US-09363041 1999-07-29 1999US-09382492 1999-08-25 1999US-09392670 1999-09-08 2000US-09604616 2000-06-27
• Fampat family US6434299 B1 2002-08-13	[US6434299]

Abstract:

(US6434299)

A variety of wavelength division multiplexing/demultiplexing devices are disclosed. In one embodiment, an improved wavelength division multiplexing for receiving a plurality of diverging monochromatic optical beams, for combining the plurality of diverging monochromatic optical beams into a converging multiplexed, polychromatic optical beam, and for transmitting the converging, multiplexed, polychromatic optical beam. The concave diffraction grating can be formed in a variety of ways such as, for example, in a polymer material with a reflective surface. Alternatively, the concave diffraction grating may be etched into a rigid material with a reflective surface.

