

200006957-5.

**PCT**WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H04B 10/18, G02B 6/28	A1	(11) International Publication Number: WO 99/62202 (43) International Publication Date: 2 December 1999 (02.12.99)
(21) International Application Number: PCT/US99/10570 (22) International Filing Date: 13 May 1999 (13.05.99) (30) Priority Data: ① 09/085,368 ✓ 27 May 1998 (27.05.98) ✓ US (71) Applicant: MCI WORLD COM, INC. [US/US]; 515 East Armit Street, Jackson, MS 39201 (US). (72) Inventor: ROBINSON, Andrew, Niall; 5002 Bryn Mawr Drive, McKinney, TX 75070 (US). (74) Agent: GROLZ, Edward, W.; Scully, Scott, Murphy & Presser, 400 Garden City Plaza, Garden City, NY 11530 (US).		(81) Designated States: CA, JP, MX, <u>SG</u> European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report. ✓ Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments. 1 PD. 1 appl. 1 INV. IPC = H04B 10/18, G02B 6/28 IPER 2/12/99.
(54) Title: BIDIRECTIONAL DISPERSION COMPENSATION SYSTEM ✓		
(57) Abstract A bidirectional chromatic dispersion system includes an optical circulator that includes four ports (33). A first port (35) is coupled to a first optical transmission medium (43) and a third port (39) is coupled to the second transmission medium (45). A first dispersion compensating grating (49) which reflects wavelengths in a first optical band is coupled to the second port through a dispersion compensating fiber, and a second dispersion compensating grating (47) which reflects wavelengths in a second optical band is coupled to the forth port through a dispersion compensating fiber. The first dispersion compensating grating is substantially transparent to wavelengths in the second optical band and the second dispersion compensating grating is substantially transparent to wavelengths in the first optical band.		