

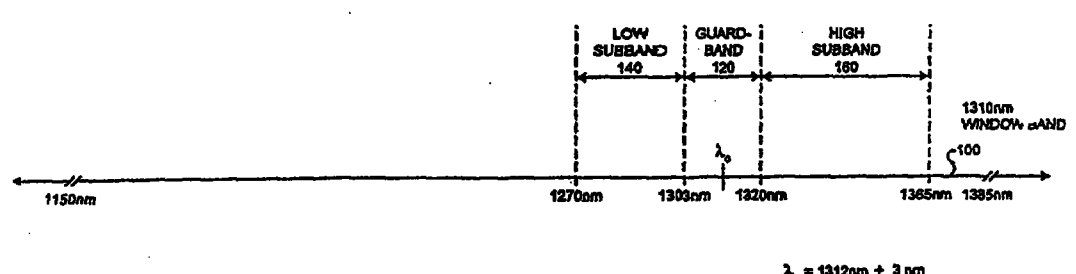
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(51) International Patent Classification ⁶: H04J 14/02, H04B 10/00	A1	(11) International Publication Number: WO 99/43118 (43) International Publication Date: 26 August 1999 (26.08.99)
(21) International Application Number: PCT/US99/03573 (22) International Filing Date: 19 February 1999 (19.02.99) (30) Priority Data: 60/075,404 20 February 1998 (20.02.98) US 09/106,725 29 June 1998 (29.06.98) US (71) Applicant: MCI WORLDCOM, INC. [US/US]; 515 East Amite Street, Jackson, MS 39201 (US). (72) Inventors: COOK, Joseph, C.; 1434 O'Shannon Lane, Garland, TX 75044 (US). MAO, Xiaoping, C.; 7308 Family Farm Road, Plano, TX 75024 (US). (74) Agent: GROLZ, Edward, W.; Scully, Scott, Murphy & Presser, 400 Garden City Plaza, Garden City, NY 11753 (US).		(81) Designated States: CA, JP, MX, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>
(54) Title: DENSE WDM IN THE 1310NM BAND  The diagram shows a wavelength spectrum from 1150nm to 1385nm. A central region is labeled '1310nm WINDOW BAND' with a width of 100nm. This window is divided into three sections: 'LOW SUBBAND 140' (from 1270nm to 1300nm), 'GUARD-BAND 120' (from 1300nm to 1320nm), and 'HIGH SUBBAND 160' (from 1320nm to 1380nm). A carrier wavelength λ_0 is indicated at 1312nm. Below the diagram, the text $\lambda_0 = 1312\text{nm} \pm 3\text{nm}$ is written. (57) Abstract Dense wavelength division multiplexing within a 1310nm band is accomplished over a single mode fiber. Carrier wavelengths are selected from within two windows, a low subband (140) and/or a high subband (160), on either side of a guardband (120). The guardband includes the zero dispersion wavelength of a single mode fiber in the optical communication link and separates low subband and high subband within the 1310nm band. Dispersion compensation is provided for carrier signals in each dense WDM channel in the low and high subbands.		