

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 January 2007 (04.01.2007)

PCT

(10) International Publication Number
WO 2007/002815 A3

(51) International Patent Classification:

G02B 6/12 (2006.01) H04B 10/04 (2006.01)

(21) International Application Number:

PCT/US2006/025333

(22) International Filing Date: 28 June 2006 (28.06.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/694,624 28 June 2005 (28.06.2005) US
11/426,791 27 June 2006 (27.06.2006) US

(71) Applicant (for all designated States except US): **FINISAR CORPORATION** [US/US]; 1389 Moffett Park Drive, Sunnyvale, CA 94089 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIELY, Phillip, Anthony** [GB/US]; 1477 Avenida De Los Padres, Morgan Hills, CA 95037 (US). **TRKLJA, Minja** [BA/US]; 2390 Williams Street, Palo Alto, CA 94306 (US). **MORAN, Timothy, G.** [US/US]; 1628 Knollwood Avenue, San Jose, CA 95125 (US).

(74) Agents: **ISRAELSEN, R., Burns et al.**; WORKMAN NYDEGGER, 1000 Eagle Gate Tower, 60 East South Temple, Salt Lake City, UT 84111 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

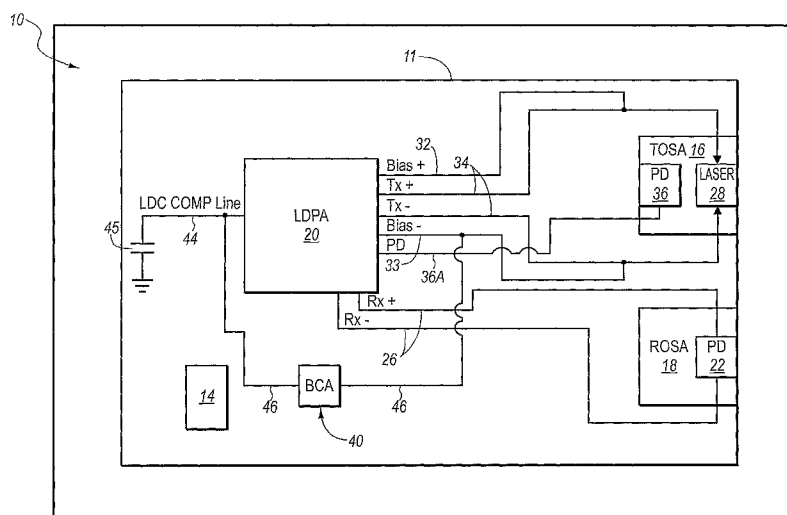
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

10 January 2008

[Continued on next page]

(54) Title: GIGABIT ETHERNET LONGWAVE OPTICAL TRANSCEIVER MODULE HAVING AMPLIFIED BIAS CURRENT



(57) Abstract: An optical transceiver module configured for longwave optical transmission is disclosed. Significantly, the transceiver module utilizes components formerly used only for shortwave optical transmission, thereby reducing new component production and device complexity. In one embodiment, the transceiver module includes a transmitter optical subassembly including a laser capable of producing an optical signal. A consolidated laser driver/post amplifier including a first bias current source provides a bias current to the laser for producing the optical signal. A means for amplifying the bias current provided to the laser by the first bias current source is also included as a separate component from the laser driver/post amplifier. The means for amplifying in one embodiment is a field-effect transistor that is operably connected to the laser driver/post amplifier and configured to provide an additional bias current to the laser diode such that sufficient lasing operation of the laser is realized.

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