

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: G02B 6/42, 6/38	A1	(11) International Publication Number: WO 97/46901 (43) International Publication Date: 11 December 1997 (11.12.97)
(21) International Application Number: PCT/US97/07544 (22) International Filing Date: 5 May 1997 (05.05.97) (30) Priority Data: 08/660,358 7 June 1996 (07.06.96) US (71) Applicant: MINNESOTA MINING AND MANUFACTURING COMPANY [US/US]; 3M Center, P.O. Box 33427, Saint Paul, MN 55133-3427 (US). (72) Inventors: SMITH, Terry, L.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). HENSON, Gordon, D.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). (74) Agents: GWIN, H., Sanders et al.; Minnesota Mining and Manufacturing Company, Office of Intellectual Property Counsel, P.O. Box 33427, Saint Paul, MN 55133-3427 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: OPTOELECTRONIC DEVICE RECEPTACLE AND METHOD OF MAKING SAME**(57) Abstract**

The present invention discloses an optoelectronic device receptacle for connecting at least one fiber cables to optical semiconductor components and a method for manufacturing the same. The optoelectronic device receptacle comprises a receptacle alignment block subassembly (10) and a coupling body (94). The receptacle alignment block subassembly comprises a first alignment block portion (12) having at least one groove (18) formed therein. A second alignment block portion (14) is provided for mating with the first alignment block portion. An optical fiber (22) is disposed in the first alignment block portion. Each optical fiber is for transmitting light through the optoelectronic interface device. Finally, an adhesive (23) is provided to secure the first and second device portions together. The receptacle alignment block subassembly further comprises an optoelectronic device array optically aligned to the alignment block, and a method of providing electrical contact to the optoelectronic devices. An optoelectronic device receptacle having a flexible circuit (60) and an optoelectronic semiconductor component (50) mounted thereto is also disclosed in the present invention. A flexible circuit for providing electrical connection to an optical semiconductor component is provided and is mounted to the mated first and second alignment block portions. An optoelectronic semiconductor component is provided for mounting to the flexible circuit.

