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(21) International Application Number: PCT/GB98/00384 (22) International Filing Date: 6 February 1998 (06.02.98) (30) Priority Data: 9702579.5 7 February 1997 (07.02.97) GB (71) Applicant: BOOKHAM TECHNOLOGY LIMITED (GB/GB); 90 Milton Park, Abingdon, Oxon. OX14 4RY (GB). (72) Inventors: RICKMAN, Andrew, George, St. Katherines Lodge, Savernake Forest, Marlborough, Wilts. SN8 3BG (GB). HARPIN, Arnold, Peter, Roscoe, 58 Stratford Street, Oxford OX4 1SW (GB). MORRIS, Robin, Jeremy, Richard, 43 Henley Street, Oxford OX4 1ES (GB). ASGHARI, Mehdi, 53 Godolphin Close, Freshbrook, Swindon SN5 8RN (GB). (74) Agent: S.G. UNWIN & CO.; Brookfurlong Farmhouse, Islip, Oxford OX5 2TJ (GB).		(81) Designated States: AU, CA, CN, IL, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>

(54) Title: **A TAPERED RIB WAVEGUIDE**

(57) Abstract

A tapered rib waveguide tapering from a large, multi-mode optical waveguide to a smaller, single-mode optical waveguide, the tapered rib waveguide comprising two portions (4, 5) formed of the same material: a lower portion (4) which tapers laterally from the large waveguide to the smaller waveguide and an upper portion (5) formed on the lower portion (4), which tapers to a point (or other form of termination), the dimensions of the two portions (4, 5) being such that substantially all of a fundamental mode propagated in the large multi-mode waveguide is coupled to the smaller, single-mode waveguide.

