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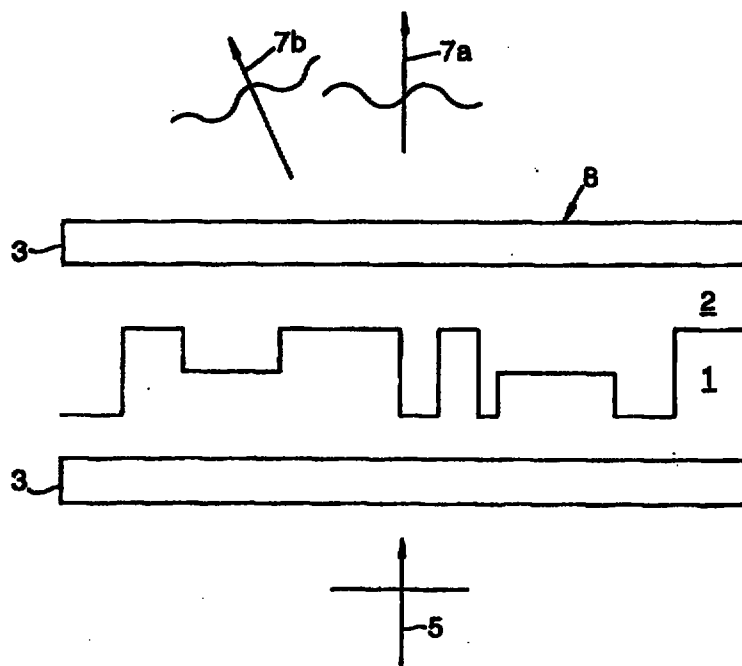
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(21) International Application Number: PCT/GB97/01346 (22) International Filing Date: 16 May 1997 (16.05.97) (30) Priority Data: 9611278.4 30 May 1996 (30.05.96) GB (71) Applicant (for all designated States except US): THE SECRETARY OF STATE FOR DEFENCE IN HER BRITANNIC MAJESTY'S GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND [GB/GB]; Defence Evaluation & Research Agency, Ively Road, Farnborough, Hampshire GU14 0XL (GB). (72) Inventor; and (75) Inventor/Applicant (for US only): SLINGER, Christopher, William [GB/GB]; Defence Research Agency, St. Andrews Road, Malvern, Worcestershire WR14 3PS (GB). (74) Agent: SKELTON, Stephen, Richard; D/IPR (DERA) Formalities, Poplar 2a, MOD (PE) Abbey Wood #19, P.O. Box 702, Bristol BS12 7DU (GB).	(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, 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, US, UZ, VN, 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). Published <i>With international search report.</i>	

(54) Title: MULTIPLE ACTIVE COMPUTER GENERATED HOLOGRAM



(57) Abstract

Apparatus which allows selection and generation of a variety of hologrammatic optical wavefronts. A device, which comprises a substrate layer of varying thickness and an electro optic layer, with a voltage dependent refractive index mismatch between the two, is used to modulate transmitted light, thus generating a hologrammatic wavefront. Said modulation can be changed by variation of an applied voltage and this changes the wavefront which is generated. The range of wavefronts which can be generated is defined by the distribution of substrate layer thicknesses across the device.