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(21) International Application Number: PCT/IB96/01424 (22) International Filing Date: 12 December 1996 (12.12.96) (30) Priority Data: 08/588,799 19 January 1996 (19.01.96) US (71) Applicant: PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). (71) Applicant (for SE only): PHILIPS NORDEN AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE). (72) Inventors: KHAN, Babar, Ali; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). VAN HELLEPUTTE, Henri, R., J., R.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). BURGMANS, Adrianus, L., J.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). KUIJK, Karel, Eibert; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). BONGAERTS, Petrus, F., G.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). BRUININK, Jacob; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). (74) Agent: RAAP, Adriaan, Y.; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL).	(51) Designated States: CN, 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. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: **PLASMA ADDRESSED LIQUID CRYSTAL DISPLAY WITH ETCHED GLASS SPACERS**

(57) Abstract

A flat display device, preferably of the PALC type, in which the plasma channels are formed by etching laterally-spaced slots in a spacer plate, attaching a thin dielectric sheet over the etched spacer plate, and bonding the etched spacer plate to a transparent substrate such that each channel is formed by the portion of the substrate between flanking walls formed by the etched slots in the spacer plate, adjacent flanking

walls in the spacer plate, and the overlying portion of the thin dielectric sheet. By positioning the flanking walls between channel electrode pairs, thus providing glass-to-glass interfaces, anodic bonding can be employed to assemble the three channel elements. Etching can be simplified by pre-attaching the unetched channel plate to the substrate or thin dielectric cover sheet with an intervening etch stop, and etching *in situ* using the etch stop to prevent etching of the substrate or thin dielectric cover sheet. In a modification, the thin dielectric cover sheet as a separate element is substituted by depositing a continuous layer or multi-layers including an etch stop on the unetched spacer plate so that, following the etching, the deposited layer or multi-layer remains as the thin channel cover.

