

SG 9701407-0



PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H01L 41/08, H01G 4/38, B32B 31/18, B23K 26/14 // 101:36		A1	(11) International Publication Number: WO 97/01868
(21) International Application Number: PCT/IB96/00524		(43) International Publication Date: 16 January 1997 (16.01.97)	
(22) International Filing Date: 31 May 1996 (31.05.96)		(81) Designated States: JP, KR, <u>SG</u> , European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(30) Priority Data: 95201740.8 27 June 1995 (27.06.95) EP (34) Countries for which the regional or international application was filed: NL et al.		Published 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.	
(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: RIJNBEEK, Antonius, Gregorius; Vogelsberg 35, NL-6026 EC Maarheeze (NL). WARNIER, Jacques; M.L. Kingstraat 18, NL-6245 GJ Eijsden (NL).			
(74) Agent: STOLK, Steven, A.; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL).			

(54) Title: METHOD OF MANUFACTURING MULTILAYER ELECTRONIC COMPONENTS

(57) Abstract

A method of manufacturing a plurality of multilayer electronic components, comprising the steps of: (a) manufacturing a laminated sheet (1) in which layers (3, 3') of ceramic tape are each provided on one side with a pattern of electrodes (5, 5'), are stacked so that the electrode patterns (5, 5') on consecutive layers (3, 3') are offset back and forth with respect to one another, and are pressed together; (b) cutting the laminated sheet (1) into segments in which consecutive electrodes are alternately exposed at a different segment edge; (c) sintering the segments; (d) providing electrical contacts which interconnect the electrodes exposed at given segment edges, wherein the cutting step (b) is performed by directing a focused laser beam (7) onto the plane of the laminated sheet (1) and by effecting relative motion of the beam (7) with respect to the sheet (1) so as to trace the beam (7) along a selected cutting path (13), whereby the intercept (9) of the beam (7) and the sheet (1) is cooled by a flow of non-flammable gas.

