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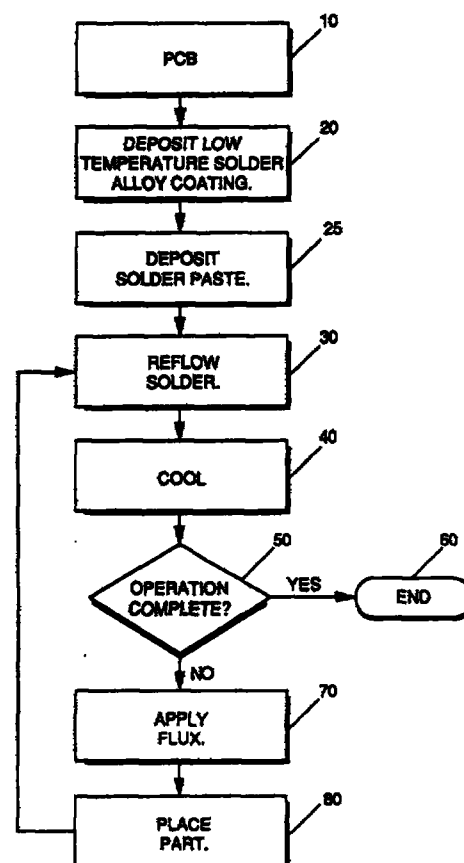
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(21) International Application Number: PCT/US95/16739 (22) International Filing Date: 19 December 1995 (19.12.95) (30) Priority Data: 08/358,295 19 December 1994 (19.12.94) US (71) Applicant: MOTOROLA INC. [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60196 (US). (72) Inventors: BRADLEY, Edwin, L., III; 4941 N.W. 96th Terrace, Sunrise, FL 33351 (US). BANERJI, Kingshuk; 810 N.W. 98th Avenue, Plantation, FL 33324 (US). KAZEM-GOUDARZI, Vahid; 12626 N.W. 15th Street, Sunrise, FL 33323 (US). (74) Agents: GHOMESHI, M., Mansour et al.; Motorola Inc., Intellectual Property Dept., 8000 West Sunrise Boulevard, Fort Lauderdale, FL 33322 (US).		(81) Designated States: CA, KR, MX, <u>SE</u> , European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>

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(54) Title: SOLDERING PROCESS

(57) Abstract

A soldering process uses two or more different solder alloys. A first solder alloy (115) that undergoes a solid-to-liquid transition at a first temperature is coated (20) onto the solderable surfaces (105) of a printed circuit board (100). A solder paste (120) that undergoes this solid-to-liquid transition at a temperature greater than the first temperature is deposited on the coated solderable portions, and is heated to a temperature that is above the first temperature but below the second temperature. During this time, the first solder alloy liquifies, while the solder paste does not. The first solder alloy wets to the individual particles in the solder paste, and alloys to the solderable surfaces and the solder particles in the solder paste. The soldering composition is subsequently cooled (40) to solidify the first solder material, forming a solid and substantially planar coating on the solderable portions of the printed circuit board.



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