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[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR OPTIMIZING LOOPING PARAMETERS AND LOOPING TRAJECTORIES IN THE FORMATION OF WIRE LOOPS

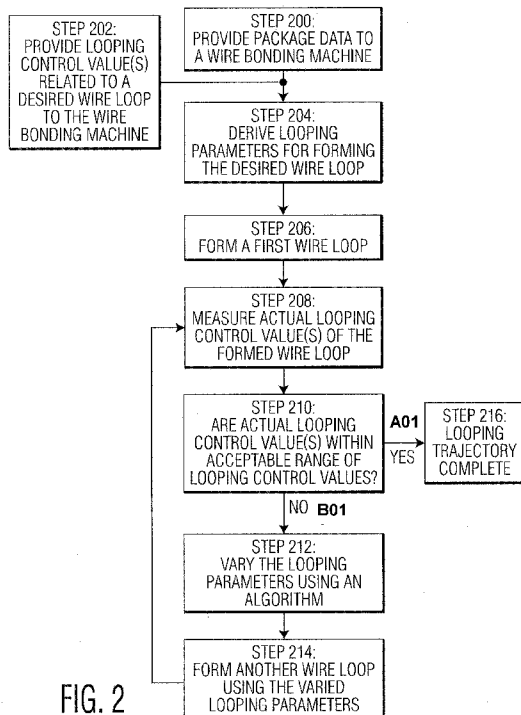


FIG. 2

(57) Abstract: A method of forming a wire loop in connection with a semiconductor package is provided. The method includes the steps of: (1) providing package data related to the semiconductor package to a wire bonding machine; (2) providing at least one looping control value related to a desired wire loop to the wire bonding machine, the at least one looping control value including at least a loop height value related to the desired wire loop; (3) deriving looping parameters, using an algorithm, for forming the desired wire loop; (4) forming a first wire loop on the wire bonding machine using the looping parameters derived in step (3); (5) measuring actual looping control values of the first wire loop formed in step (4) corresponding to the at least one looping control value; and (6) comparing the actual looping control values measured in step (5) to the at least one looping control value provided in step (2).

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LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: wire, loop, connection, semiconductor, package, bond, machine, control, parameter, algorithm, and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6564115 B1 (KINNAIRD CLARK) 13 May 2003 See abstract, Figures 1-8 and claims 1-29	1-21
A	JP 08-078460 A (NKK CORP) 22 March 1996 See abstract, Figures 1-4 and claim 1	1-21
A	US 5150828 A1 (SHIMIZU; YASUHIKO) 29 September 1992 See abstract, Figures 1-7 and claims 1-9	1-21
A	JP 2007-258334 A (MATSUSHITA ELECTRIC IND CO LTD) 04 October 2007 See abstract, Figures 1-26 and claims 1-21	1-21

 Further documents are listed in the continuation of Box C. See patent family annex.

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"&" document member of the same patent family

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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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JP 08-078460 A	22.03.1996	None	
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		JP 2896222 B2	31.05.1999
JP 2007-258334 A	04.10.2007	None	