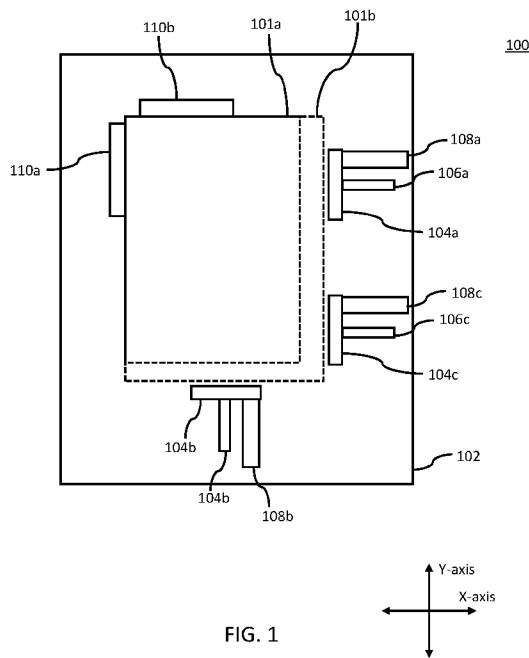




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(54) Title: ALIGNMENT SYSTEM AND METHOD OF USING THE SAME



(57) Abstract: An alignment system includes a substrate fixture configured to receive a substrate, a guide structure positionally fixed relative to a substrate fixture and at least one actuated clamp. The substrate fixture may be configured to receive a substrate. An actuated clamp may include a clamp, an actuator coupled to the clamp and positionally fixed relative to a substrate fixture that is configured to receive a substrate, and an encoder operative to generate and output encoder data indicative of the position of the clamp. The actuator may be operative to move the clamp relative to the substrate fixture. The guide structure and the actuated clamp can be arranged such that a substrate received by the substrate fixture is pressable between the clamp and the guide structure when the clamp is moved relative to the substrate fixture by the first actuator.



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A. CLASSIFICATION OF SUBJECT MATTER**H01J 37/32(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H01J 37/32; H01L 21/027; C23C 16/04; H01L 21/687; C23C 16/44; H01J 37/20; H01L 21/66; C23C 14/04; B25J 7/00

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: Substrate, clamp, position, actuator, encoder, reference

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2015-158390 A1 (APPLIED MATERIALS, INC) 22 October 2015 See paragraphs [0011]-[0047]; claims 12-13; and figures 1A-3.	1-15
Y	WO 2015-085248 A1 (KLA-TENCOR CORPORATION) 11 June 2015 See paragraphs [0025]-[0045], [0065]-[0068]; claim 1; and figure 7.	1-15
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A	US 2016-0053361 A1 (APPLIED MATERIALS, INC.) 25 February 2016 See paragraphs [0027]-[0066]; and figures 1a-6.	1-15
A	EP 0511704 A1 (PHILIPS ELECTRONICS N.V.) 04 November 1992 See column 6, line 25 - column 8, line 13; and figures 3a-5.	1-15

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

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"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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