

Title (en)  
HIGH DENSITY MULTI-COMPONENT AND SERIAL PACKAGES

Title (de)  
HOCHDICHTE MEHRKOMPONENTEN- UND SERIENVERPACKUNGEN

Title (fr)  
BOÎTIERS MULTI-COMPOSANTS DE HAUTE DENSITÉ EN SÉRIE

Publication  
**EP 3679599 A4 20210526 (EN)**

Application  
**EP 18853638 A 20180910**

Priority

- US 201715699654 A 20170908
- US 201715804515 A 20171106
- US 201715852799 A 20171222
- US 2018050142 W 20180910

Abstract (en)  
[origin: WO2019051346A1] An improved high density multi-component package is provided. The package comprising at least two electronic components. Each electronic component comprises a first external termination and a second external termination. At least one electrical connection is between adjacent first external terminations of adjacent electronic components. At least one mechanical connection is between adjacent electronic components. At least two adjacent electronic components are connected serially.

IPC 8 full level  
**H01L 21/822** (2006.01); **H01G 2/06** (2006.01); **H01G 4/224** (2006.01); **H01G 4/232** (2006.01); **H01G 4/30** (2006.01); **H01G 4/38** (2006.01); **H01G 4/40** (2006.01); **H01L 21/8224** (2006.01); **H01L 23/00** (2006.01); **H01L 23/64** (2006.01); **H01L 25/065** (2006.01); **H01L 25/10** (2006.01); **H01L 25/16** (2006.01); **H05K 1/14** (2006.01); **H05K 1/18** (2006.01)

CPC (source: EP)  
**H01G 2/06** (2013.01); **H01G 4/224** (2013.01); **H01G 4/232** (2013.01); **H01G 4/30** (2013.01); **H01G 4/38** (2013.01); **H01G 4/40** (2013.01); **H01L 23/642** (2013.01); **H01L 24/05** (2013.01); **H01L 24/13** (2013.01); **H01L 24/14** (2013.01); **H01L 24/16** (2013.01); **H01L 24/17** (2013.01); **H01L 24/32** (2013.01); **H01L 24/48** (2013.01); **H01L 24/50** (2013.01); **H01L 24/73** (2013.01); **H01L 25/0652** (2013.01); **H01L 25/0657** (2013.01); **H01L 25/10** (2013.01); **H01L 25/16** (2013.01); **H05K 1/141** (2013.01); **H05K 1/147** (2013.01); **H05K 1/181** (2013.01); **H01L 24/29** (2013.01); **H01L 2224/0401** (2013.01); **H01L 2224/04026** (2013.01); **H01L 2224/131** (2013.01); **H01L 2224/1329** (2013.01); **H01L 2224/133** (2013.01); **H01L 2224/13562** (2013.01); **H01L 2224/1369** (2013.01); **H01L 2224/14517** (2013.01); **H01L 2224/16058** (2013.01); **H01L 2224/16105** (2013.01); **H01L 2224/16145** (2013.01); **H01L 2224/16225** (2013.01); **H01L 2224/16227** (2013.01); **H01L 2224/16235** (2013.01); **H01L 2224/16265** (2013.01); **H01L 2224/16267** (2013.01); **H01L 2224/17181** (2013.01); **H01L 2224/17183** (2013.01); **H01L 2224/29021** (2013.01); **H01L 2224/32013** (2013.01); **H01L 2224/32105** (2013.01); **H01L 2224/32106** (2013.01); **H01L 2224/32147** (2013.01); **H01L 2224/32148** (2013.01); **H01L 2224/32227** (2013.01); **H01L 2224/32237** (2013.01); **H01L 2224/32257** (2013.01); **H01L 2224/32268** (2013.01); **H01L 2224/48227** (2013.01); **H01L 2224/48477** (2013.01); **H01L 2224/73203** (2013.01); **H01L 2224/73253** (2013.01); **H01L 2224/81825** (2013.01); **H01L 2224/8184** (2013.01); **H01L 2224/81895** (2013.01); **H01L 2224/8385** (2013.01); **H01L 2224/83862** (2013.01); **H01L 2224/83874** (2013.01); **H01L 2224/83877** (2013.01); **H01L 2225/0651** (2013.01); **H01L 2225/06513** (2013.01); **H01L 2225/06517** (2013.01); **H01L 2225/06572** (2013.01); **H01L 2924/00014** (2013.01); **H01L 2924/10155** (2013.01); **H01L 2924/15159** (2013.01); **H05K 2201/10515** (2013.01); **H05K 2201/1053** (2013.01); **H05K 2201/10636** (2013.01)

C-Set (source: EP)

1. **H01L 2224/81825 + H01L 2924/00014**
2. **H01L 2224/8184 + H01L 2924/00014**
3. **H01L 2224/81895 + H01L 2924/00014**
4. **H01L 2224/1329 + H01L 2924/00014**
5. **H01L 2224/133 + H01L 2924/014**
6. **H01L 2224/73203 + H01L 2924/00012**
7. **H01L 2224/83862 + H01L 2924/00014**
8. **H01L 2224/83874 + H01L 2924/00014**
9. **H01L 2224/83877 + H01L 2924/00014**
10. **H01L 2224/8385 + H01L 2924/0782**
11. **H01L 2224/16225 + H01L 2924/00012**
12. **H01L 2224/131 + H01L 2924/014**
13. **H01L 2924/00014 + H01L 2224/45099**

Citation (search report)

- [X] US 2016205769 A1 20160714 - PARK SANG SOO [KR], et al
- [A] US 2017169956 A1 20170615 - MILLER GALEN W [US], et al
- [A] US 2014002952 A1 20140102 - MCCONNELL JOHN E [US], et al
- [A] US 2017099727 A1 20170406 - SON SOO HWAN [KR]
- See also references of WO 2019051346A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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**WO 2019051346 A1 20190314**; CN 111052347 A 20200421; CN 111052347 B 20240301; EP 3679599 A1 20200715; EP 3679599 A4 20210526; JP 2020534675 A 20201126; JP 7121797 B2 20220818

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