

Title (en)

METHOD FOR RE-ROUTING LITHOGRAPHY-FREE MICROELECTRONIC DEVICES

Title (de)

VERFAHREN ZUR MIKROELEKTRONISCHEN LEITWEGUMLENKUNG OHNE LITHOGRAPHIE

Title (fr)

PROCEDE DE REROUTAGE DE DISPOSITIFS MICROELECTRONIQUES SANS LITHOGRAPHIE

Publication

EP 1573805 A2 20050914 (FR)

Application

EP 03809999 A 20031217

Priority

- FR 0350188 W 20031217
- FR 0216117 A 20021218

Abstract (en)

[origin: FR2849270A1] The manufacture of a wafer level chip scale (WLCS) package for a wafer (22) having at least one chip with input/outlet contacts (73) on the wafer's front face comprises using a mold or complex stencil to make a stress relaxing insulation layer (78) with access cavities for the contacts and raised portions to relax stresses having a stepped configuration to support electrical connections. The manufacture of a wafer level chip scale (WLCS) package for a wafer (22) having at least one chip with input/outlet contacts (73) on the wafer's front face comprises using a mold or complex stencil to make a stress relaxing insulation layer (78) with access cavities for the contacts and raised portions to relax stresses, each raised portion having a stepped configuration to support electrical connections. Electrical conducting tracks (75) are formed on the relaxation layer to connect the input/outlet contacts to the electrical connections, and external contacts (77) are formed on the connectors. Between the last two stages an encapsulation layer (79) can be formed over the relaxation layer while leaving the electrical connections exposed.

IPC 1-7

H01L 23/31

IPC 8 full level

H01L 21/60 (2006.01); **H01L 21/768** (2006.01); **H01L 23/31** (2006.01); **H01L 23/485** (2006.01); **H01L 23/525** (2006.01)

CPC (source: EP US)

H01L 21/76898 (2013.01 - EP US); **H01L 23/3114** (2013.01 - EP US); **H01L 23/525** (2013.01 - EP US); **H01L 24/02** (2013.01 - EP);
H01L 24/11 (2013.01 - US); **H01L 24/12** (2013.01 - US); **H01L 24/03** (2013.01 - EP); **H01L 24/05** (2013.01 - EP);
H01L 24/11 (2013.01 - EP); **H01L 24/13** (2013.01 - EP); **H01L 2224/02125** (2013.01 - EP); **H01L 2224/0231** (2013.01 - US);
H01L 2224/02313 (2013.01 - EP); **H01L 2224/02321** (2013.01 - EP); **H01L 2224/0236** (2013.01 - EP); **H01L 2224/02381** (2013.01 - EP);
H01L 2224/034 (2013.01 - EP); **H01L 2224/03602** (2013.01 - EP); **H01L 2224/0361** (2013.01 - EP); **H01L 2224/0401** (2013.01 - EP US);
H01L 2224/05155 (2013.01 - EP US); **H01L 2224/05166** (2013.01 - EP US); **H01L 2224/05548** (2013.01 - EP);
H01L 2224/05647 (2013.01 - EP US); **H01L 2224/05655** (2013.01 - EP US); **H01L 2224/05666** (2013.01 - EP US);
H01L 2224/13024 (2013.01 - EP); **H01L 2224/13099** (2013.01 - EP US); **H01L 2924/0001** (2013.01 - EP); **H01L 2924/01005** (2013.01 - EP US);
H01L 2924/01006 (2013.01 - EP US); **H01L 2924/01013** (2013.01 - EP US); **H01L 2924/01022** (2013.01 - EP US);
H01L 2924/01029 (2013.01 - EP US); **H01L 2924/01033** (2013.01 - EP US); **H01L 2924/01057** (2013.01 - EP US);
H01L 2924/01058 (2013.01 - EP US); **H01L 2924/01075** (2013.01 - EP US); **H01L 2924/01079** (2013.01 - EP US);
H01L 2924/014 (2013.01 - EP US); **H01L 2924/14** (2013.01 - EP US); **H01L 2924/181** (2013.01 - EP US)

C-Set (source: EP US)

EP

1. **H01L 2924/181 + H01L 2924/00**
2. **H01L 2224/05666 + H01L 2924/01029 + H01L 2924/013**
3. **H01L 2224/05655 + H01L 2924/01079 + H01L 2924/013**
4. **H01L 2224/05647 + H01L 2924/00014**
5. **H01L 2224/05655 + H01L 2924/00014**
6. **H01L 2224/05666 + H01L 2924/00014**
7. **H01L 2224/05155 + H01L 2924/00014**
8. **H01L 2224/05166 + H01L 2924/00014**
9. **H01L 2924/0001 + H01L 2224/02**
10. **H01L 2224/05166 + H01L 2924/01029 + H01L 2924/013**
11. **H01L 2224/05155 + H01L 2924/01079 + H01L 2924/013**

US

1. **H01L 2924/181 + H01L 2924/00**
2. **H01L 2224/05647 + H01L 2924/00014**
3. **H01L 2224/05655 + H01L 2924/00014**
4. **H01L 2224/05666 + H01L 2924/00014**
5. **H01L 2224/05155 + H01L 2924/00014**
6. **H01L 2224/05166 + H01L 2924/00014**

Citation (search report)

See references of WO 2004057667A2

Designated contracting state (EPC)

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DOCDB simple family (publication)

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WO 2004057667 A3 20040812

DOCDB simple family (application)

FR 0216117 A 20021218; EP 03809999 A 20031217; FR 0350188 W 20031217; US 53888905 A 20050614