

Title (en)

MICROELECTRONIC CONTACT STRUCTURES

Title (de)

MIKROELEKTRONISCHE KONTAKTSTRUKTUREN

Title (fr)

STRUCTURES DE CONTACT MICRO-ELECTRONIQUES

Publication

EP 0985231 A1 20000315 (EN)

Application

EP 98922344 A 19980514

Priority

- US 9809999 W 19980514
- US 9708634 W 19970515
- US 7367998 P 19980204
- US 3247398 A 19980226

Abstract (en)

[origin: WO9852224A1] Microelectronic contact structures (260, 360, 460) are lithographically defined and fabricated by applying a masking layer (220, 320, 420) on a surface of a substrate (202, 302, 402) such as an electronic component, creating an opening (222, 322, 422) in the masking layer, depositing a conductive trace of a seed layer (250, 350, 450) onto the masking layer and into the openings, and building up a mass of conductive material on the conductive trace. The sidewalls of the opening can be sloped (tapered). The conductive trace can be patterned by depositing material through a stencil or shadow mask (240, 340, 440). A protruding feature (230, 430) may be disposed on the masking layer so that a tip end (264, 364, 464) of the contact structure acquires a topography. All of these elements can be constructed as a group to form a plurality of precisely positioned resilient contact structures.

IPC 1-7

H01L 23/48; H01L 21/48

IPC 8 full level

H01L 21/20 (2006.01); **H01L 21/3205** (2006.01); **H01L 21/48** (2006.01); **H01L 21/60** (2006.01); **H01L 23/12** (2006.01); **H01L 23/48** (2006.01); **H01L 23/498** (2006.01); **H01L 23/52** (2006.01); **H01L 23/522** (2006.01); **H01R 4/48** (2006.01); **H01R 12/16** (2006.01); **H01R 13/24** (2006.01); **H05K 3/40** (2006.01)

CPC (source: EP KR)

H01L 21/4853 (2013.01 - EP); **H01L 23/49811** (2013.01 - EP); **H01L 23/522** (2013.01 - EP); **H01L 24/02** (2013.01 - EP); **H01L 24/03** (2013.01 - KR); **H01L 24/11** (2013.01 - EP KR); **H01L 24/13** (2013.01 - EP); **H01L 24/14** (2013.01 - EP); **H01L 24/16** (2013.01 - EP); **H01L 24/72** (2013.01 - EP); **H01L 24/03** (2013.01 - EP); **H01L 24/05** (2013.01 - EP); **H01L 24/81** (2013.01 - EP); **H01L 24/94** (2013.01 - EP); **H01L 2224/02311** (2013.01 - EP); **H01L 2224/02313** (2013.01 - EP); **H01L 2224/0239** (2013.01 - EP); **H01L 2224/036** (2013.01 - EP); **H01L 2224/03912** (2013.01 - EP); **H01L 2224/0401** (2013.01 - EP); **H01L 2224/05166** (2013.01 - EP); **H01L 2224/05644** (2013.01 - EP); **H01L 2224/05666** (2013.01 - EP); **H01L 2224/11003** (2013.01 - EP); **H01L 2224/11005** (2013.01 - EP); **H01L 2224/11334** (2013.01 - EP); **H01L 2224/11426** (2013.01 - EP); **H01L 2224/1143** (2013.01 - EP); **H01L 2224/1145** (2013.01 - EP); **H01L 2224/11452** (2013.01 - EP); **H01L 2224/11462** (2013.01 - EP); **H01L 2224/11464** (2013.01 - EP); **H01L 2224/11472** (2013.01 - EP); **H01L 2224/11474** (2013.01 - EP); **H01L 2224/11823** (2013.01 - EP); **H01L 2224/119** (2013.01 - EP); **H01L 2224/13012** (2013.01 - EP); **H01L 2224/13015** (2013.01 - EP); **H01L 2224/13016** (2013.01 - EP); **H01L 2224/13017** (2013.01 - EP); **H01L 2224/13018** (2013.01 - EP); **H01L 2224/13019** (2013.01 - EP); **H01L 2224/13024** (2013.01 - EP); **H01L 2224/1308** (2013.01 - EP); **H01L 2224/13082** (2013.01 - EP); **H01L 2224/13083** (2013.01 - EP); **H01L 2224/13084** (2013.01 - EP); **H01L 2224/131** (2013.01 - EP); **H01L 2224/13109** (2013.01 - EP); **H01L 2224/13111** (2013.01 - EP); **H01L 2224/13113** (2013.01 - EP); **H01L 2224/13116** (2013.01 - EP); **H01L 2224/13139** (2013.01 - EP); **H01L 2224/13144** (2013.01 - EP); **H01L 2224/13147** (2013.01 - EP); **H01L 2224/13155** (2013.01 - EP); **H01L 2224/13157** (2013.01 - EP); **H01L 2224/1316** (2013.01 - EP); **H01L 2224/13163** (2013.01 - EP); **H01L 2224/13164** (2013.01 - EP); **H01L 2224/13166** (2013.01 - EP); **H01L 2224/13169** (2013.01 - EP); **H01L 2224/13173** (2013.01 - EP); **H01L 2224/13176** (2013.01 - EP); **H01L 2224/13178** (2013.01 - EP); **H01L 2224/1318** (2013.01 - EP); **H01L 2224/13184** (2013.01 - EP); **H01L 2224/13562** (2013.01 - EP); **H01L 2224/13644** (2013.01 - EP); **H01L 2224/145** (2013.01 - EP); **H01L 2224/16145** (2013.01 - EP); **H01L 2224/16227** (2013.01 - EP); **H01L 2224/81801** (2013.01 - EP); **H01L 2224/94** (2013.01 - EP); **H01L 2924/381** (2013.01 - EP); **H05K 3/4092** (2013.01 - EP)

Citation (search report)

See references of WO 9852224A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 9852224 A1 19981119; AU 7491598 A 19981208; EP 0985231 A1 20000315; JP 2000512437 A 20000919; JP 2002231718 A 20020816; JP 2003031289 A 20030131; JP 3378259 B2 20030217; KR 100577131 B1 20060510; KR 100577132 B1 20060509; KR 20010012575 A 20010215; KR 20040034685 A 20040428

DOCDB simple family (application)

US 9809999 W 19980514; AU 7491598 A 19980514; EP 98922344 A 19980514; JP 2001378598 A 20011212; JP 2002152167 A 20020527; JP 54959498 A 19980514; KR 19997010532 A 19991115; KR 20047003178 A 19980514