Title (en)

FLEXIBLE, SPACE-EFFICIENT I/O CIRCUITRY FOR INTEGRATED CIRCUITS

Title (de)

FLEXIBLE UND PLATZSPARENDE EINGANGS-/AUSGANGSSCHALTUNG FÜR INTEGRIERTE SCHALTKREISE

Title (fr)

CIRCUITERIE E/S FLEXIBLE ET COMPACTE POUR CIRCUITS INTÉGRÉS

Publication

EP 2901477 A4 20160706 (EN)

Application

EP 13842574 A 20130924

Priority

- US 201213627270 A 20120926
- US 2013061317 W 20130924

Abstract (en)

[origin: WO2014052274A1] Flexible, space-efficient I/O architectures for integrated circuits simplify circuit design and shorten design times. In one aspect, cells for power supply pads are eliminated, in part by locating ESD protection circuitry for these pads underneath the pads themselves, leaving only signal I/O buffers. Pads coupled to the signal I/O buffers may be defined as either signal I/O pads or power supply pads in accordance with customization circuitry. Customization circuitry provides for flexible bank architectures, where signal I/O buffers within a bank share power supply requirements that may be different from power supply requirements of signal I/O buffers of another bank. The number of banks and the number of signal I/O buffers belonging to each bank is flexibly defined. Customization circuitry provides for flexible pad options, whereby the IC pads may be configured for different packaging technology, for example, for wire bonding for flip-chip bonding, or for other types of bonding.

IPC 8 full level

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CPC (source: CN EP)

H01L 23/60 (2013.01 - CN EP); **H01L 24/06** (2013.01 - CN EP); **H01L 27/0296** (2013.01 - CN EP); H01L 23/50 (2013.01 - CN EP); H01L 23/5286 (2013.01 - CN EP); H01L 27/11898 (2013.01 - CN EP); H01L 2224/0401 (2013.01 - CN EP); H01L 2224/04042 (2013.01 - CN EP); H01L 2224/05552 (2013.01 - CN EP); H01L 2224/05553 (2013.01 - EP); H01L 2224/05554 (2013.01 - EP); H01L 2224/06133 (2013.01 - CN EP)

Citation (search report)

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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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