

Title (en)

PARALLEL PROCESSING ON DEMAND USING PARTIALLY DYNAMICALLY RECONFIGURABLE FPGA

Title (de)

PARALLELVERARBEITUNG AUF ANFRAGE MIT VERWENDUNG VON TEILWEISE DYNAMISCH REKONFIGURIERBAREM FPGA

Title (fr)

TRAITEMENT EN PARALLÈLE SUR DEMANDE GRÂCE À UN FPGA PARTIELLEMENT RECONFIGURABLE DYNAMIQUEMENT

Publication

EP 3555760 A1 20191023 (EN)

Application

EP 17818135 A 20171219

Priority

- EP 16306730 A 20161219
- EP 2017083555 W 20171219

Abstract (en)

[origin: WO2018114957A1] Method for performing parallel processing within at least one FPGA chip which comprises one dynamically reconfigurable master unit and at least two dynamically reconfigurable slave units, each slave unit comprising a pool of interconnected slave elements (slave 0, slave 1, slave 2, slave 3), each slave element comprising a plurality of slave IP cores, one slave softcore processor integrating them and an instruction memory, said one master unit comprising one reconfiguration IP core (14), at least one master IP core, one master softcore processor (1) integrating said at least one master IP core and a memory (3) containing a master program for execution by said at least one master IP core, wherein at runtime of the master program, the reconfiguration IP core (14) executes at least one instruction causing the reconfiguration of the pool of slave elements (slave 0, slave 1, slave 2, slave 3) by dynamically varying their number and/or interconnections according to a given configuration defined in said master program and then by storing into each of the instruction memories (102, 202, 302, 402) of the slave elements (slave 0, slave 1, slave 2, slave 3) a corresponding slave program for parallel execution by the slave IP cores.

IPC 8 full level

G06F 15/78 (2006.01); **G06F 15/80** (2006.01)

CPC (source: EP)

G06F 15/7867 (2013.01); **G06F 15/80** (2013.01); **Y02D 10/00** (2017.12)

Citation (search report)

See references of WO 2018114957A1

Cited by

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Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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