

Title (en)

METHOD AND DEVICE FOR LOADING AND EXECUTING INSTRUCTIONS WITH DETERMINISTIC CYCLES IN A MULTICORE AVIONICS SYSTEM HAVING A BUS, THE ACCESS TIME OF WHICH IS UNPREDICTABLE

Title (de)

VERFAHREN UND EINRICHTUNG ZUM LADEN UND AUSFÜHREN VON ANWEISUNGEN MIT DETERMINISTISCHEN ZYKLEN IN EINEM EINEN BUS AUFWEISENDEN MEHRKERN-AVIONIKSYSTEM, DESSEN ZUGRIFFSZEIT UNVORHERSEHBAR IST

Title (fr)

PROCÉDÉ ET DISPOSITIF DE CHARGEMENT ET D'EXÉCUTION D'INSTRUCTIONS À CYCLES DÉTERMINISTES DANS UN SYSTÈME AVIONIQUE MULTI-COEURS AYANT UN BUS DONT LE TEMPS D'ACCÈS EST NON PRÉDICTIBLE

Publication

EP 2438528 A1 20120411 (FR)

Application

EP 10734208 A 20100602

Priority

- FR 2010051071 W 20100602
- FR 0902750 A 20090605

Abstract (en)

[origin: WO2010139896A1] The invention particularly relates to a method and device for loading and executing a plurality of instructions in an avionics system including a processor having at least two cores and a memory controller, each of the cores including a private memory. The plurality of instructions is loaded and executed by execution slots such that, during a first execution slot, a first core has access to the memory controller for transmitting (215) at least one piece of data stored in the private memory thereof and for receiving (220) and storing at least one datum and an instruction from the plurality of instructions in the private memory thereof, while the second core does not have access to the memory controller and executes (210) at least one instruction previously stored in the the private memory thereof and such that, during a second execution slot, the roles of the two cores are reversed.

IPC 8 full level

G06F 15/167 (2006.01); **G06F 9/38** (2006.01); **G06F 13/16** (2006.01)

CPC (source: EP US)

G06F 9/3802 (2013.01 - EP US); **G06F 13/1663** (2013.01 - EP US); **G06F 15/167** (2013.01 - EP US)

Citation (search report)

See references of WO 2010139896A1

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 SE SI SK SM TR

DOCDB simple family (publication)

WO 2010139896 A1 20101209; EP 2438528 A1 20120411; FR 2946442 A1 20101210; FR 2946442 B1 20110805; US 2012084525 A1 20120405; US 8694747 B2 20140408

DOCDB simple family (application)

FR 2010051071 W 20100602; EP 10734208 A 20100602; FR 0902750 A 20090605; US 201013376022 A 20100602