

Title (en)
MECHANICAL COMPUTING SYSTEMS

Title (de)
MECHANISCHE COMPUTERSYSTEME

Title (fr)
SYSTÈMES INFORMATIQUES MÉCANIQUES

Publication
EP 3398024 A4 20190925 (EN)

Application
EP 15912213 A 20151231

Priority
US 2015068359 W 20151231

Abstract (en)
[origin: WO2017116482A1] Systems and methods for creating mechanical computing mechanisms and Turing-complete systems which include combinatorial logic and sequential logic, and are energy-efficient. Embodiments of the invention include mechanical computing mechanisms and computational systems which have lower energy dissipation, a smaller number of basic parts, and other advantages over previous systems. Multiple embodiments are disclosed including mechanical link logic, mechanical flexure logic, and mechanical cable logic, along with design paradigms (including both mechanical designs, principles, and a novel classification system which categorizes systems as Types 1 through 4) that teach how to apply the general principles to other embodiments.

IPC 8 full level
G06C 15/00 (2006.01); **G06C 21/00** (2006.01)

CPC (source: EP)
G06C 15/00 (2013.01); **G06C 21/00** (2013.01)

Citation (search report)

- [X1] US 2011278365 A1 20111117 - SWARTZ ROBERT [US]
- [X1] US 7414437 B1 20080819 - BLICK ROBERT H [US], et al
- [X1] I. MAHBOOB ET AL: "Interconnect-free parallel logic circuits in a single mechanical resonator", NATURE COMMUNICATIONS, vol. 2, 15 February 2011 (2011-02-15), pages 198, XP055344480, DOI: 10.1038/ncomms1201
- See also references of WO 2017116482A1

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

DOCDB simple family (publication)
WO 2017116482 A1 20170706; CA 3007614 A1 20170706; CA 3007614 C 20210518; CA 3113363 A1 20170706; CA 3113363 C 20230718; EP 3398024 A1 20181107; EP 3398024 A4 20190925; EP 3398024 B1 20230906; ES 2963835 T3 20240402; JP 2019506693 A 20190307; JP 7079205 B2 20220601

DOCDB simple family (application)
US 2015068359 W 20151231; CA 3007614 A 20151231; CA 3113363 A 20151231; EP 15912213 A 20151231; ES 15912213 T 20151231; JP 2018554310 A 20151231