Title (en)
SCHOTTKY-CMOS ASYNCHRONOUS LOGIC CELLS

Title (de)
ASYNCHRONE SCHOTTKY-CMOS-LOGIKZELLEN

Title (fr)
CELLULES LOGIQUES ASYNCHRONES À CMOS SCHOTTKY

Publication
EP 3610573 A4 20210421 (EN)

Application
EP 18783874 A 20180410

Priority
• US 201715484040 A 20170410
• US 2018026817 W 20180410

Abstract (en)
[origin: WO2018191217A1] Integrated circuits described herein implement an x-input logic gate. The integrated circuit includes a plurality of Schottky diodes that includes x Schottky diodes and a plurality of source-follower transistors that includes x source-follower transistors. Each respective source-follower transistor of the plurality of source-follower transistors includes a respective gate node that is coupled to a respective Schottky diode. A first source-follower transistor of the plurality of source-follower transistors is connected serially to a second source-follower transistor of the plurality of source-follower transistors.

IPC 8 full level
H03K 19/017 (2006.01); **H03K 19/0948** (2006.01); **H03K 19/0956** (2006.01); **H03K 19/177** (2020.01)

CPC (source: CN EP)
H03K 19/017 (2013.01 - CN EP); **H03K 19/0948** (2013.01 - CN EP); **H03K 19/0956** (2013.01 - CN EP); **H03K 19/177** (2013.01 - CN EP)

Citation (search report)
• [A] US 4405870 A 19830920 - EDEN RICHARD C [US]
• [XI] US 2006044018 A1 20060302 - CHANG AUGUSTINE W [US]
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• [I] "Integrated Circuits and Digital Devices - Computer Arithmetic, Principles, Architecture and Design, Chapter 2", 1 January 1979, JOHN WILEY & SONS, New York, ISBN: 978-0-471-03496-4, article KAI HWANG: "Integrated Circuits and Digital Devices - Computer Arithmetic, Principles, Architecture and Design, Chapter 2", pages: 31 - 68, XP055569640
• See references of WO 2018191217A1

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 2018191217 A1 20181018; **WO 2018191217 A4 20181129**; CN 110622419 A 20191227; CN 110622419 B 20210511; CN 113452362 A 20210928; CN 113452362 B 20220708; EP 3610573 A1 20200219; EP 3610573 A4 20210421; TW 201904198 A 20190116; TW 202230983 A 20220801; TW I760477 B 20220411

DOCDB simple family (application)
US 2018026817 W 20180410; CN 201880031001 A 20180410; CN 202110419241 A 20180410; EP 18783874 A 20180410; TW 107112301 A 20180410; TW 111107370 A 20180410