

Title (en)
RECONFIGURABLE METASURFACE DEVICE

Title (de)
REKONFIGURIERBARE METAMATERIALVORRICHTUNG

Title (fr)
DISPOSITIF A METASURFACE RECONFIGURABLE

Publication
EP 3903384 C0 20231129 (FR)

Application
EP 19817351 A 20191213

Priority

- FR 1874305 A 20181228
- EP 2019085190 W 20191213

Abstract (en)
[origin: WO2020136026A1] The invention relates to a metasurface device (1) comprising a stack of layers comprising a metasurface (4) comprising a two-dimensional array of conductive pads (5) separated by openings (6), the conductive pads having dimensions smaller than the operating wavelength of the metasurface device, the metasurface device (1) comprising a set of switches (10) made of a material capable of changing from the insulating state to the conductive state, and vice versa, under the effect of a variation of an electrical field within the material so as to enable the conductive pads to connect or insulate selectively from one another, the switches being interposed between a first set of electrodes (E1) and a second set of electrodes (E2) enabling the switches of the set of switches to be changed from the conductive state to the insulating state, and vice versa.

IPC 8 full level
H01Q 3/24 (2006.01); **H01Q 3/44** (2006.01); **H01Q 15/00** (2006.01)

CPC (source: EP)
H01Q 3/24 (2013.01); **H01Q 3/44** (2013.01); **H01Q 15/002** (2013.01); **H01Q 15/0026** (2013.01)

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

Participating member state (EPC – UP)
AT BE BG DE DK EE FI FR IT LT LU LV MT NL PT SE SI

DOCDB simple family (publication)
WO 2020136026 A1 20200702; EP 3903384 A1 20211103; EP 3903384 B1 20231129; EP 3903384 C0 20231129; FR 3091420 A1 20200703;
FR 3091420 B1 20210122

DOCDB simple family (application)
EP 2019085190 W 20191213; EP 19817351 A 20191213; FR 1874305 A 20181228