

Title (en)

FAN OUT STRUCTURE FOR LIGHT-EMITTING DIODE (LED) DEVICE AND LIGHTING SYSTEM

Title (de)

AUFFÄCHERUNGSSTRUKTUR FÜR LEUCHTDIODEN(LED)-VORRICHTUNG UND BELEUCHTUNGSSYSTEM

Title (fr)

STRUCTURE EN ÉVENTAIL POUR DISPOSITIF À DIODE ÉLECTROLUMINESCENTE (DEL) ET SYSTÈME D'ÉCLAIRAGE

Publication

EP 4062461 A1 20220928 (EN)

Application

EP 20821568 A 20201119

Priority

- US 201962937629 P 20191119
- US 201962951601 P 20191220
- US 202016750839 A 20200123
- EP 20158481 A 20200220
- US 2020061206 W 20201119

Abstract (en)

[origin: WO2021102097A1] Systems are described. A system includes a silicon backplane having a top surface, a bottom surface, and side surfaces and a substrate surrounding the side surfaces of the silicon backplane. The substrate has a top surface, a bottom surface and side surfaces. At least one bond pad is provided on the bottom surface of the substrate. A metal layer is provided on the bottom surface of the substrate and the bottom surface of the silicon backplane and has a first portion electrically and thermally coupled to the bottom surface of the silicon backplane in a central region and second portions that extend between a perimeter region of the silicon backplane and the at least one bond pad. An array of metal connectors is provided on the top surface of the silicon backplane.

IPC 8 full level

H01L 33/64 (2010.01); **H01L 27/15** (2006.01)

CPC (source: EP KR)

H01L 23/49827 (2013.01 - KR); **H01L 24/07** (2013.01 - KR); **H01L 24/19** (2013.01 - EP); **H01L 24/96** (2013.01 - EP); **H01L 25/0753** (2013.01 - KR); **H01L 25/167** (2013.01 - EP KR); **H01L 27/1218** (2013.01 - KR); **H01L 27/124** (2013.01 - KR); **H01L 27/156** (2013.01 - KR); **H01L 33/62** (2013.01 - KR); **H01L 2224/02331** (2013.01 - KR); **H01L 2224/0235** (2013.01 - KR); **H01L 2224/02381** (2013.01 - KR); **H01L 2224/04105** (2013.01 - EP); **H01L 2924/12041** (2013.01 - EP); **H01L 2924/1433** (2013.01 - EP)

Citation (search report)

See references of WO 2021102097A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2021102097 A1 20210527; CN 114946042 A 20220826; EP 4062461 A1 20220928; JP 2023502248 A 20230123; KR 20220104206 A 20220726; TW 202139418 A 20211016; TW I774130 B 20220811

DOCDB simple family (application)

US 2020061206 W 20201119; CN 202080093666 A 20201119; EP 20821568 A 20201119; JP 2022529117 A 20201119; KR 20227020755 A 20201119; TW 109140569 A 20201119