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 DE SORTANCE POUR DISPOSITIF À DIODE ÉLECTROLUMINESCENTE (DEL) ET SYSTÈME D'ÉCLAIRAGE

Publication

EP 4062450 A1 20220928 (EN)

Application

EP 20821567 A 20201119

Priority

- US 201962937629 P 20191119
- US 201962951601 P 20191220
- US 202016750824 A 20200123
- EP 20158288 A 20200219
- US 2020061205 W 20201119

Abstract (en)

[origin: WO2021102096A1] Methods of manufacturing a system are described. A method includes attaching a silicon backplane to a carrier and molding the silicon backplane on the carrier such that a molding material surrounds side surfaces of the silicon backplane to form a structure comprising a substrate with an embedded silicon backplane. The structure has a first surface opposite the carrier, a second surface adjacent the carrier, and side surfaces. At least one via is formed through the molding material and filled with a metal material. A metal layer is formed on a central region of the first surface of the structure. Redistribution layers are formed on the first surface of the structure adjacent the metal layer.

IPC 8 full level

H01L 25/075 (2006.01); **H01L 23/00** (2006.01); **H01L 27/15** (2006.01); **H01L 33/00** (2010.01); **H01L 33/50** (2010.01); **H01L 33/62** (2010.01); **H01L 33/64** (2010.01)

CPC (source: EP KR)

H01L 21/6835 (2013.01 - EP); **H01L 24/03** (2013.01 - KR); **H01L 24/19** (2013.01 - EP); **H01L 24/20** (2013.01 - EP); **H01L 24/81** (2013.01 - KR); **H01L 24/92** (2013.01 - EP); **H01L 25/0753** (2013.01 - KR); **H01L 25/167** (2013.01 - EP); **H01L 27/156** (2013.01 - KR); **H01L 33/0093** (2020.05 - EP); **H01L 33/486** (2013.01 - KR); **H01L 33/502** (2013.01 - KR); **H01L 33/62** (2013.01 - EP KR); **H01L 33/642** (2013.01 - EP); **H01L 33/644** (2013.01 - EP); H01L 24/13 (2013.01 - EP); H01L 24/16 (2013.01 - EP); H01L 24/32 (2013.01 - EP); H01L 24/81 (2013.01 - EP); H01L 24/83 (2013.01 - EP); H01L 25/0753 (2013.01 - EP); H01L 33/50 (2013.01 - EP); H01L 33/647 (2013.01 - EP); H01L 2221/68368 (2013.01 - EP); H01L 2221/68372 (2013.01 - EP); H01L 2224/0231 (2013.01 - KR); H01L 2224/16145 (2013.01 - EP); H01L 2224/18 (2013.01 - EP); H01L 2224/221 (2013.01 - EP); H01L 2224/32145 (2013.01 - EP); H01L 2224/73204 (2013.01 - EP); H01L 2224/8112 (2013.01 - KR); H01L 2224/92125 (2013.01 - EP); H01L 2224/92133 (2013.01 - EP); H01L 2224/92135 (2013.01 - EP); H01L 2224/9222 (2013.01 - EP); H01L 2924/12041 (2013.01 - EP); H01L 2924/1433 (2013.01 - EP); H01L 2933/0025 (2013.01 - EP); H01L 2933/0041 (2013.01 - KR); H01L 2933/0066 (2013.01 - EP KR); H01L 2933/0075 (2013.01 - EP)

C-Set (source: EP)

1. H01L 2224/9222 + H01L 2224/19 + H01L 2224/19 + H01L 2224/81 + H01L 2224/83
2. H01L 2224/92133 + H01L 2224/83
3. H01L 2224/18 + H01L 2924/0001

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 2021102096 A1 20210527; CN 115605995 A 20230113; EP 4062450 A1 20220928; JP 2023502247 A 20230123; KR 20220101700 A 20220719; TW 202135278 A 20210916; TW I824197 B 20231201

DOCDB simple family (application)

US 2020061205 W 20201119; CN 202080093695 A 20201119; EP 20821567 A 20201119; JP 2022529116 A 20201119; KR 20227020667 A 20201119; TW 109140564 A 20201119