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- (71) Applicant (for all designated States except US):
SINKPAD CORPORATION [US/US]; 950 South Fee
Ana Street, Placentia, CA 92870 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): VASOYA, Kalu, K.
[US/US]; 5620 Picasso Drive, Yorba Linda, CA 92887
(US).
- (74) Agents: VINCENT, Lester, J. et al; Blakely, Sokoloff,
Taylor & Zafman LLP, 1279 Oakmead Park Way, Sunny-
vale, CA 94085-4040 (US).

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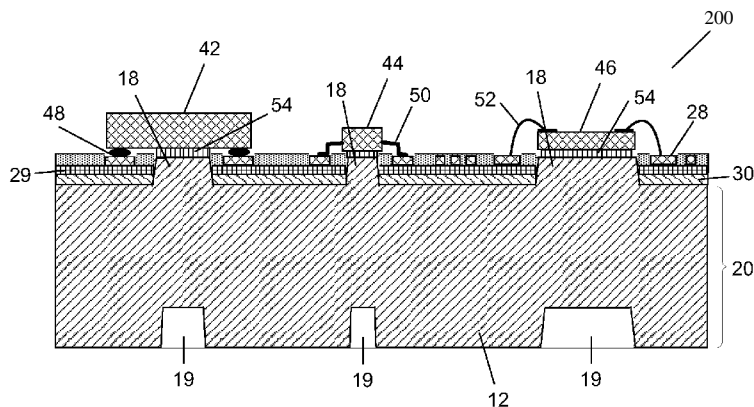


FIG. 1

(57) Abstract: A printed circuit board includes a dielectric layer having a first surface and an opposing second surface and a circuit layer laminated to the first surface of the dielectric layer. Cut-out windows provide openings through the dielectric and circuit layers. A thermally conductive layer is laminated to the second surface of the dielectric layer. The thermally conductive layer includes at least one smkpad that passes through the cut-out windows. The smkpad is an embossed, hollow feature of the thermally conductive layer. A surface of the sinkpad may be substantially coplanar with a surface of the circuit layer and be prepared for compatibility with a solder reflow process. A heat generating electronic component may be electrically coupled to the circuit layer and thermally coupled to the sinkpad of the thermally conductive layer to form an electronic assembly.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/035063**A. CLASSIFICATION OF SUBJECT MATTER*****H05K 7/20(2006.01)i, H05K 1/02(2006.01)1, H01L 33/64(2010.01)1***

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H05K 7/20; F21V 29/00; H01L 21/50; H01L 33/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: PCB, heat, LED

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010-0003788 A1 (WANG CHIA-CHUNG et al.) 07 January 2010 See abstract, paragraphs [0076] , [0097] , [0140] , [0177] , [0184] , [0185] , figures 4B-4C, 5A.	1-23
A	US 2003-0189830 A1 (MASARU SUGIMOTO et al.) 09 October 2003 See abstract, paragraphs [0082] , [0103]-[0106] , figure 5 .	1-23

 Further documents are listed in the continuation of Box C. See patent family annex.

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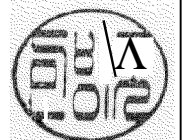

 Korean Intellectual Property Office
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Authorized officer

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Information on patent family members

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