



(51) International Patent Classification:
F28F 3/12 (2006.01) *F28F 25/02* (2006.01)

(21) International Application Number:
PCT/SG2010/000169

(22) International Filing Date:
29 April 2010 (29.04.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/265,825 2 December 2009 (02.12.2009) US

(71) Applicant (for all designated States except US): **NATIONAL UNIVERSITY OF SINGAPORE** [SG/SG];
21 Lower Kent Ridge Road, Singapore 119077 (SG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LEE, Poh Seng** [SG/SG]; c/o National University of Singapore, Faculty of Engineering, Department of Mechanical, Engineering, 21 Lower Kent Ridge Road, Singapore 119077 (SG). **LEE, Yong Jiun** [MY/SG]; c/o National University of Singapore, Faculty of Engineering, Department of Mechanical, Engineering, 21 Lower Kent Ridge Road, Singapore 119077 (SG).

(74) Agent: **ENGLISH, Matthew**; Marks & Clerk Singapore LLP, Tanjong Pagar, P O Box 636, Singapore 910816 (SG).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

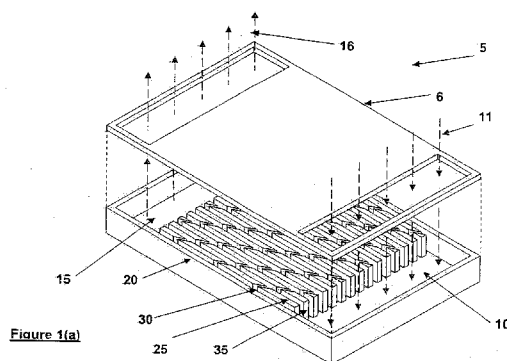
Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))

(54) Title: AN ENHANCED HEAT SINK



(57) Abstract: A heat sink device for dissipating heat from an electronic component mounted there to, the device comprising: an inlet for receiving a fluid; an outlet for venting said fluid; a heat dissipation zone intermediate the inlet and outlet; said zone including a plurality of transverse channels and a plurality of oblique channels extending between adjacent transverse channels; wherein said oblique and transverse channels define a fluid path for said fluid from the inlet to the outlet.