



(51) International Patent Classification:  
**H05K 1/14** (2006.01)

(21) International Application Number:  
PCT/SG2010/000322

(22) International Filing Date:  
3 September 2010 (03.09.2010)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **JSB TECH PRIVATE LIMITED** [SG/SG]; 20 Science Park Road, Teletech Park, #02-03A Singapore Science Park II, Singapore 117674 (SG).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **LI, Hui Hong Jim Kery** [SG/SG]; c/o Jsb Tech Private Limited, 20 Science Park Road, Teletech Park, #02-03A Singapore Science Park II, Singapore 117674 (SG).

(74) Common Representative: **JSB TECH PRIVATE LIMITED**; Loo Swee Yong, 20 Science Park Road, Teletech Park, #02-03A Singapore Science Park II, Singapore 117674 (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 (AL, 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))

— with amended claims (Art. 19(1))

(54) Title: A RIGID-FLEX CIRCUIT BOARD AND MANUFACTURING METHOD

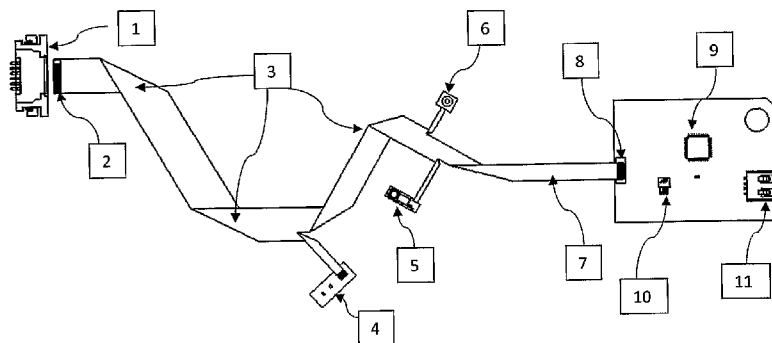


Fig. 1

(57) Abstract: Disclosed herein is a cost effective rigid- flex circuit board comprising a flexible section which contents at least one flexible flat cable for interconnect, and a plurality of rigid sections which consists of at least one rigid printed circuit board (8) for components mounting. The improved flexible flat cable comprising at least one layer of flat wires laminated with a plurality of insulating material. The flat wires having non-uniform width and pitch are folded with different angle along the length to resemble wiring patterns of a typical flexible printed circuit board. The rigid section consists of at least one piece of rigid printed circuit board having at least one layer of circuit pattern.

