



(12) **CORRECTED EUROPEAN PATENT APPLICATION**

(15) Correction information:
Corrected version no 1 (W1 A2)
Corrections, see
Bibliography INID code(s) 72

(51) Int Cl.:
H01L 23/498 (2006.01)

(48) Corrigendum issued on:
12.02.2014 Bulletin 2014/07

(43) Date of publication:
16.10.2013 Bulletin 2013/42

(21) Application number: **13162936.2**

(22) Date of filing: **09.04.2013**

(84) Designated Contracting States:
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 States:
BA ME

(72) Inventor: **Hiwatashi, Masaya**
Musashino-shi, Tokyo 180-8750 (JP)

(74) Representative: **Zimmermann, Tankred Klaus et al**
Schoppe, Zimmermann, Stöckeler
Zinkler & Partner
P.O. Box 246
82043 Pullach (DE)

(30) Priority: **09.04.2012 JP 2012088347**

(71) Applicant: **Yokogawa Electric Corporation**
Tokyo 180-8750 (JP)

(54) **Substrate device**

(57) A substrate device, includes: a plurality of substrates stacked one on another including a substrate (10) on which electronic components (12a to 12d) are mounted; and a coupling member (30 and 40) connecting mechanically and electrically the two opposed substrates (10 and 20), wherein the coupling member includes: a

plurality of core-less solder balls (40) connecting mechanically and electrically the two opposed substrates (10 and 20); and a plurality of spacers (30) configured to keep a clearance between the two opposed substrates (10 and 20) wider than a mounting height of the electronic component (12d) between the substrates.

FIG. 1A

