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(54) **BRAILLE GRAPHICS CELL MODULE AND  
BRAILLE GRAPHICS TACTILE APPARATUS**

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(75) Inventors: **Ri Su Hong**, Saitama-ken (JP);  
**Yasuhiro Iwazaki**, Saitama-ken (JP);  
**Yukio Shiraishi**, Saitama-ken (JP);  
**Masahiro Tsugawa**, Saitama-ken (JP)

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(57) **ABSTRACT**

Correspondence Address:

**CHRISTENSEN, O'CONNOR, JOHNSON,  
KINDNESS, PLLC  
1420 FIFTH AVENUE  
SUITE 2800  
SEATTLE, WA 98101-2347 (US)**

A braille graphics cell module includes a unit substrate, a braille graphics display section which holds a plurality of tactile pins movably in a vertical direction to display braille graphics, a plurality of piezoelectric element pieces, which move the corresponding tactile pins in the vertical direction at a free end thereof by bending action, arranged on a surface of the unit substrate in association with the plurality of tactile pins, and a wiring part arranged at a lower end of the unit substrate so that an upper edge of the wiring part is located close to a node portion of each piezoelectric element piece for a bending operation and a lower edge thereof is located close to the fixed end of the piezoelectric element piece, and having an electric circuit in which the fixed ends of the plurality of piezoelectric element pieces are electrically connected to the wiring part.

(73) Assignee: **KGS Corporation**

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