



(19) **United States**

(12) **Patent Application Publication**
JUAN et al.

(10) **Pub. No.: US 2010/0207902 A1**

(43) **Pub. Date: Aug. 19, 2010**

(54) **IN-CELL TOUCH-SENSITIVE PANEL**

Publication Classification

(75) Inventors: **Yi Chung JUAN**, Yongkang City (TW); **Chia Hua Yu**, Banciao City (TW); **Sung Chun Lin**, Tainan City (TW); **Hsu Ho Wu**, Tainan City (TW)

(51) **Int. Cl.**
G06F 3/041 (2006.01)
H01L 27/12 (2006.01)
(52) **U.S. Cl.** **345/173; 257/59; 257/E27.111**

Correspondence Address:
LOWE HAUPTMAN HAM & BERNER, LLP
1700 DIAGONAL ROAD, SUITE 300
ALEXANDRIA, VA 22314 (US)

(57) **ABSTRACT**

An in-cell touch-sensitive panel includes TFT and CF substrates. The TFT substrate includes a net-shaped readout circuit and conductive pads arranged in array manner. The net-shaped readout circuit includes widthwise and lengthwise readout lines. The widthwise readout lines are electrically connected to the lengthwise readout lines. The conductive pads are electrically connected to the net-shaped readout circuit. Spacers are adapted to keep a first gap between the TFT and CF substrates. Protrudent portions are arranged to be corresponding to the conductive pads, and there is a second gap between the protrudent portion and the conductive pad. A transparent electrode covers the spacers and the protrudent portion.

(73) Assignee: **HANNSTAR DISPLAY CORP.**, Taipei County (TW)

(21) Appl. No.: **12/705,232**

(22) Filed: **Feb. 12, 2010**

(30) **Foreign Application Priority Data**

Feb. 13, 2009 (TW) 098104590

