US008730179B2

(12) **United States Patent**
Rosenblatt et al.

(10) **Patent No.: US 8,730,179 B2**
(45) **Date of Patent: May 20, 2014**

(54) **INTEGRATED TOUCH SENSOR AND SOLAR ASSEMBLY**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1092 days.

(21) Appl. No.: **12/242,706**

(22) Filed: **Sep. 30, 2008**

(65) **Prior Publication Data**

US 2010/0079387 A1 Apr. 1, 2010

(51) **Int. Cl.**
G06F 3/041 (2006.01)

(52) **U.S. Cl.**
USPC **345/173**; 345/175; 345/176; 178/18.06; 178/18.09; 136/206; 136/244

(58) **Field of Classification Search**
USPC 345/156–184; 349/106, 116; 178/18.01–18.06; 136/243–246, 249, 136/251, 259; 138/259; 126/699
See application file for complete search history.

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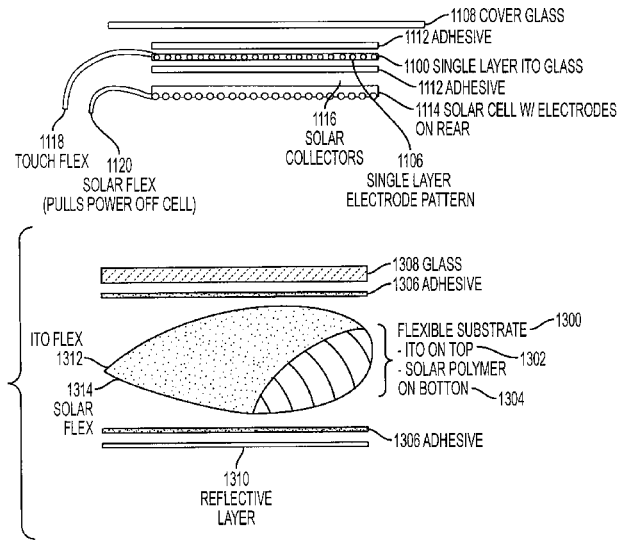
(57) **ABSTRACT**

Integrated touch sensor and solar panel stack-up configurations that may be used on portable devices, particularly hand-held portable devices such as a media player or phone are disclosed. The solar cell stack-up configurations may include one or more touch sensor layers and one or more solar cell layers. By integrating both the touch sensors and the solar cell layers into the same stack-up, surface area on the portable device may be conserved. The solar panel may be mounted face down or otherwise obstructed by a touch sensor or other component. In this configuration, the device may include light channels that allow light into the device and direct the light around the component and to the solar panel. A parabolic reflector may be used to direct the light.

10 Claims, 14 Drawing Sheets