



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

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(54) **INTERDIGITATED TOUCHSCREEN ELECTRODES**

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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 437 days.

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**G06F 3/044** (2006.01)

(52) **U.S. Cl.**  
CPC ..... **G06F 3/044** (2013.01)

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(58) **Field of Classification Search**  
CPC ..... G06F 3/0488  
USPC ..... 345/173  
See application file for complete search history.

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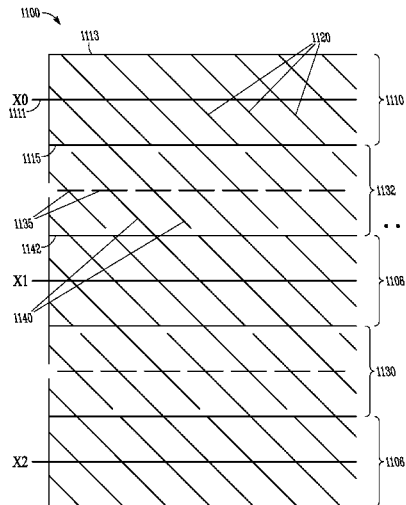
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(57) **ABSTRACT**

A device includes a plurality of adjacent electrodes for a touch sensitive device. The electrodes run generally in a first direction. Adjacent electrodes are interdigitated to provide one or more interpolation sections of the electrodes. Touch sensitive devices may utilize such interdigitated electrodes as drive electrodes, along with transverse sense electrodes formed over a display.

**25 Claims, 13 Drawing Sheets**



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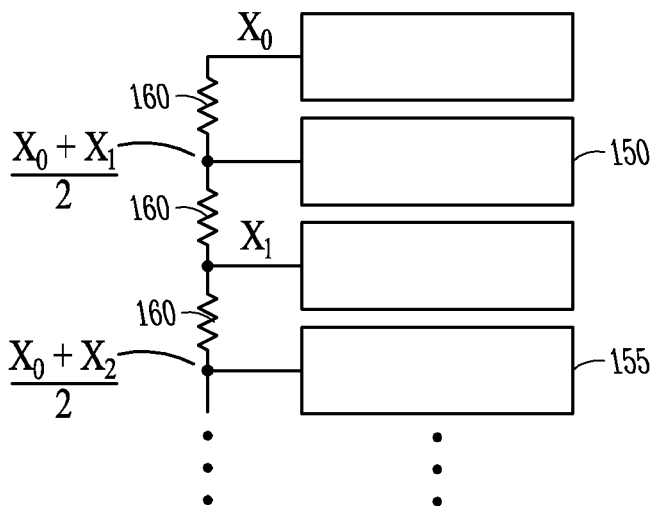
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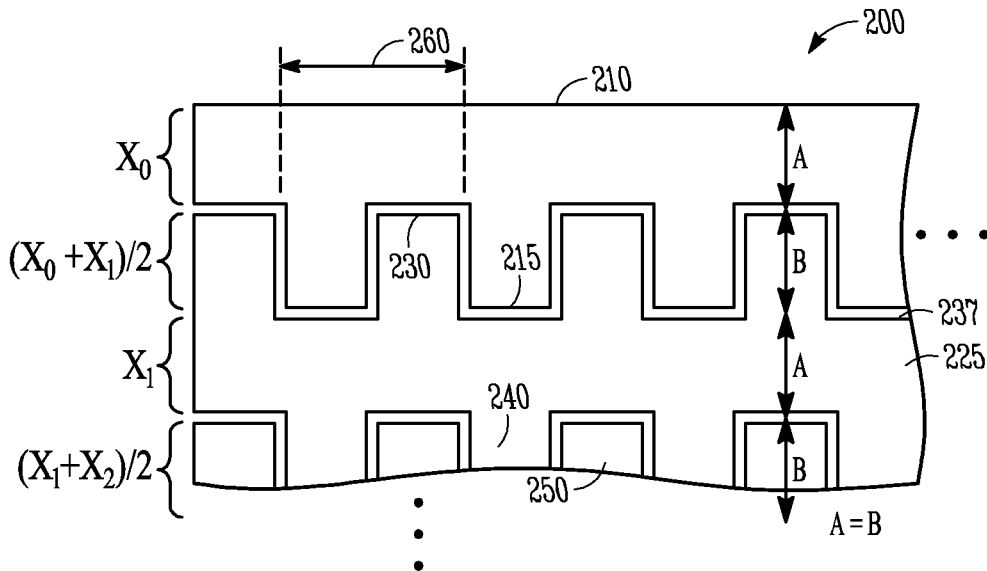
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**FIG. 1**  
(PRIOR ART)



**FIG. 2**

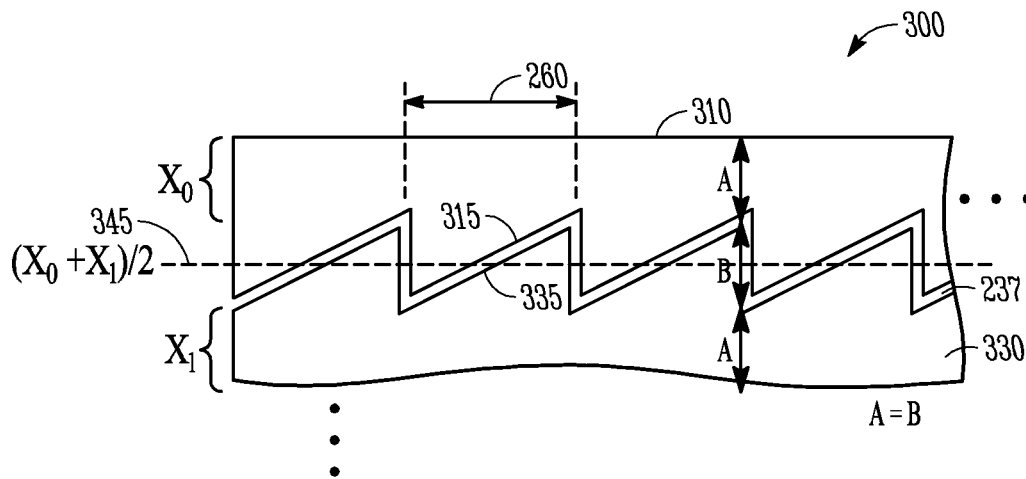


FIG. 3

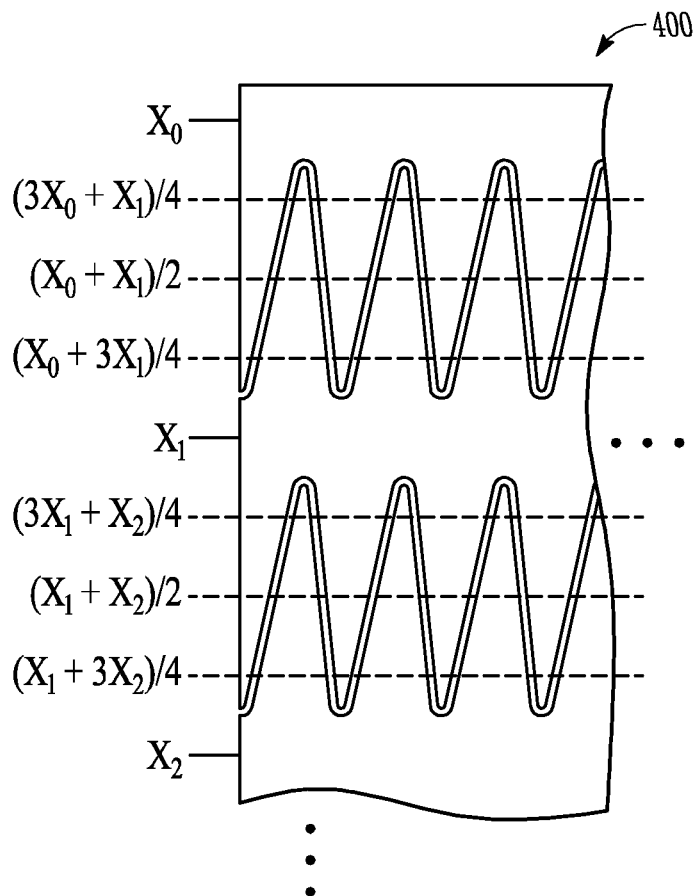


FIG. 4



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