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## (12) United States Patent

#### Philipp et al.

#### (54) INTERDIGITATED TOUCHSCREEN ELECTRODES

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- (73) Assignee: Atmel Corporation, San Jose, CA (US)
- (\*) 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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- (22) Filed: Oct. 23, 2009

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#### (45) **Date of Patent:** Apr. 25, 2017

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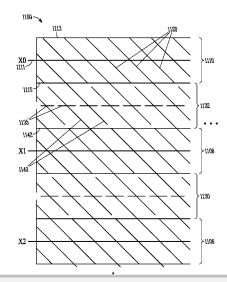
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#### (57) **ABSTRACT**

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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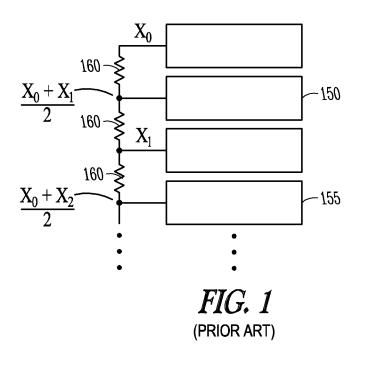
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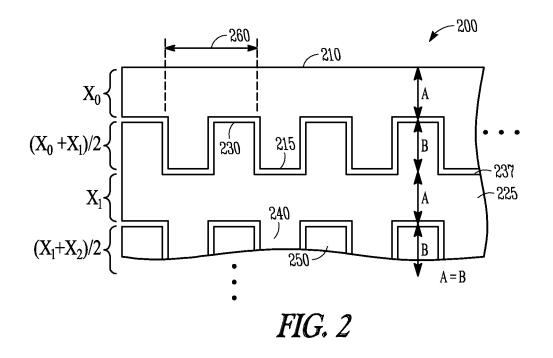
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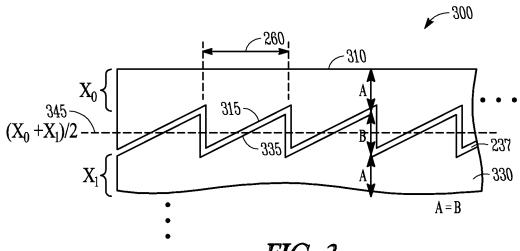




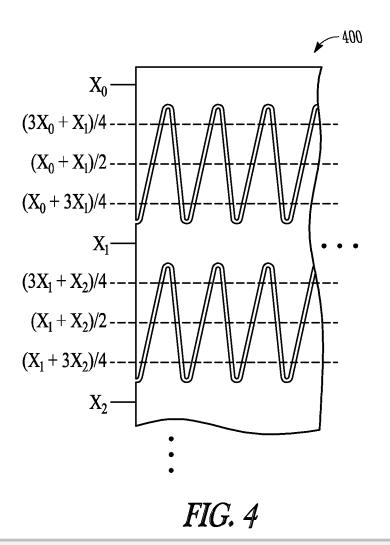
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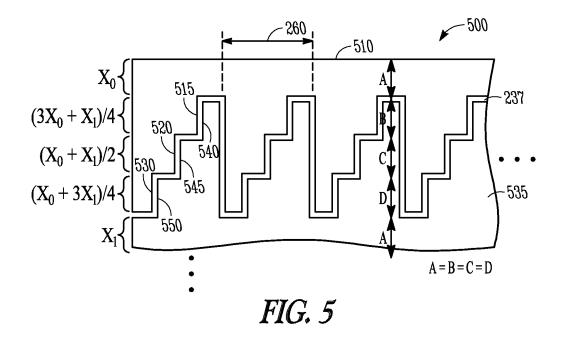
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*FIG. 3* 



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