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(54) **DISPLAY WITH DUAL-FUNCTION CAPACITIVE ELEMENTS**

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(57) **ABSTRACT**

A touch screen including display pixels with capacitive elements is provided. The touch screen includes first common voltage lines connecting capacitive elements in adjacent display pixels, and a second common voltage line connecting first common voltage lines. The pixels can be formed as electrically separated regions by including breaks in the common voltage lines. The regions can include a drive region that is stimulated by stimulation signals, a sense region that receives sense signals corresponding to the stimulation signals. A grounded region can also be included, for example, between a sense region and a drive region. A shield layer can be formed of a substantially high resistance material and disposed to shield a sense region. A black mask line and conductive line under the black mask line can be included, for example, to provide low-resistance paths between a region of pixels and touch circuitry outside the touch screen borders.

