

<b>Patent title:</b>	<b>Improvement in tactile sensor devices based on the integration between a piezoelectric transducer film and a local conditioning FET transistor</b> <b>(Perfezionamento nei dispositivi sensori tattili basati sull'integrazione tra un film piezoelettrico trasduttore e un transistor FET di condizionamento locale)</b>
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<b>Application(s):</b>	Tactile sensor devices
<b>Keyword(s):</b>	Piezoelectric polymers
<b>Abstract:</b>	The patent deals with the invention of tactile sensor devices based on the coupling of a piezoelectric polymeric film as force/pressure transducer element on the top of the gate area of a field-effect semiconductor transistor for signal amplification. The piezoelectric polymeric film generates an electric displacement/charge and hence its polarization can be controlled by the electric field and the applied force or stress. The electric displacement modulates the charge in induced channel of the FET. Thus, the force variation is directly reflected into channel current of POSFET devices, which can be further processed by an electronic circuitry that may be present on the same chip.