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(54) Title: MINIATURIZED PIEZOELECTRIC ACCELEROMETERS

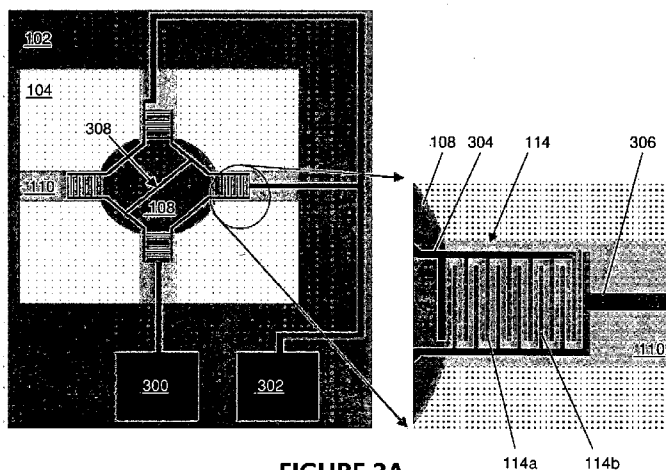


FIGURE 3A

(57) Abstract: The miniaturized piezoelectric accelerometer includes a support frame (102) having a cavity (104) and a seismic mass (108) supported by a plurality of suspension beams (110) extending from the support frame (102). Each of the suspension beams (110) has a piezoelectric thin film coated on a top surface thereof, with a pair of inter-digital electrodes (114) deposited on an upper surface of each piezoelectric thin film. The presence of acceleration excites bending and thus strain in the piezoelectric thin film, which in turn causes electrical signals to be generated over terminals of the electrodes (114). To collect constructively the output of the electrodes (114), one terminal of each of the electrodes (114) is routed to and electrically connected at a top surface (308) of the seismic mass (108).

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