

## A THREE-AXIS ACCELEROMETER

### ABSTRACT

5 The invention comprises a method of fabricating a three-axis accelerometer. A first wafer having a first and a second major surface provided with etching at least two cavities in the first major surface of the first wafer and patterning metal onto the first major surface of the first wafer to form electrical connections for a third accelerometer. A second wafer, etching a portion of a first major surface of the second wafer and  
10 bonding the first major surface of the first wafer to the first major surface of the second wafer. The etching and bonding of the surfaces deposit and pattern metallizing, and deposit and pattern a masking layer on the second major surface of the second wafer, defining the shape of a first, a second and the third accelerometer. The first and second accelerometers are formed over the cavities etched in the first major surface of the first  
15 wafer. Etching the second major surface of the second wafer to form the accelerometer where the first and second accelerometers each include at least two independent sets of the beams. The masking layer from the second major surface of the second wafer is then removed.

20 Figure 12