United States Patent [19]

Chai et al.

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[54] **ENVIRONMENTALLY SEALED VARIABLE CAPACITANCE APPARATUS**

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[52] **U.S. Cl.** ..... **340/365 C**

[58] **Field of Search** ..... 340/365 C, 365 R, 146.3 SY; 235/451; 178/18, 19; 179/90 K; 200/46

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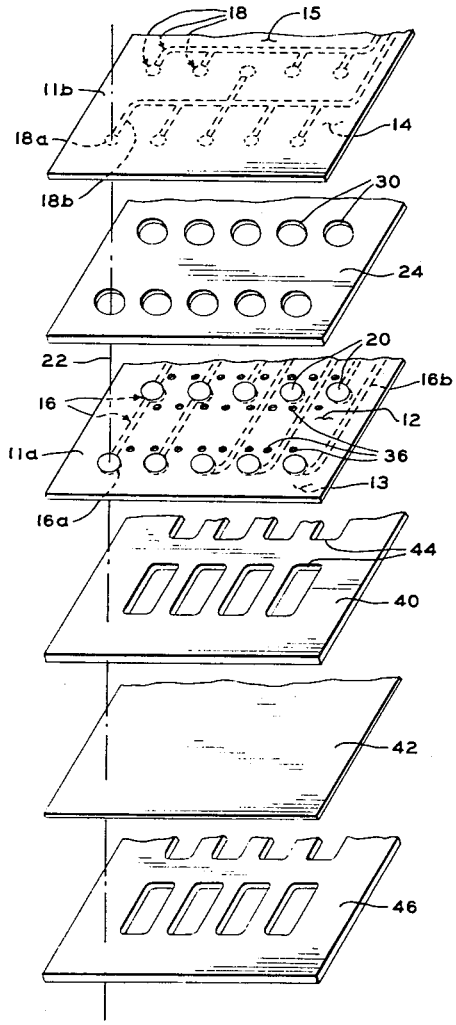
[57] **ABSTRACT**

An environmentally sealed key actuatable capacitively coupled circuit board is disclosed comprising first and second flexible dielectric sheets having electrically conductive patterns thereon which form an array of capacitors and connecting matrix of conductors. A spacer is sealed between the sheets and the patterns on the sheets include a first array of capacitor plates on an inner surface of the first sheet and a second array of capacitor plates on the outer surface of the second sheet. A third array of floating capacitor plates is formed by a third pattern on the inner surface of the second sheet.

23 Claims, 3 Drawing Figures