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(54) **REFRESHABLE SCANNING TACTILE GRAPHIC DISPLAY FOR LOCALIZED SENSORY STIMULATION**

**Related U.S. Application Data**

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(57) **ABSTRACT**

Pressure-based refreshable scanning tactile graphic display apparatus and methods are disclosed for localized sensory stimulation. The apparatus include a display array having stimulus points embedded in a matrix, an energy source applied at the stimulus points through a modulator, a control unit, and a position sensing and feedback unit or units (such as a mouse-type device or data glove, for example). The energy source is preferably stored and pressurized fluid with application to selected stimulus points (pins, for example) preferably directed at a microvalve array under the control of a computer-based control unit.

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