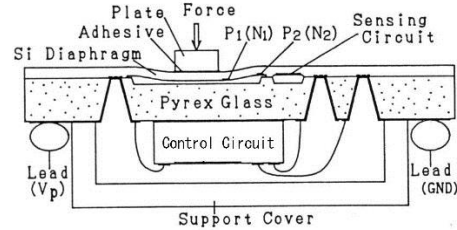
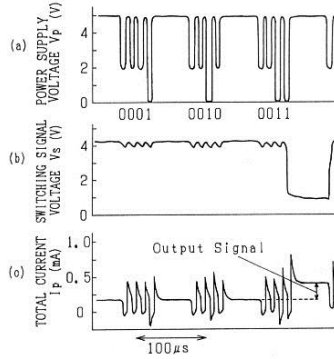
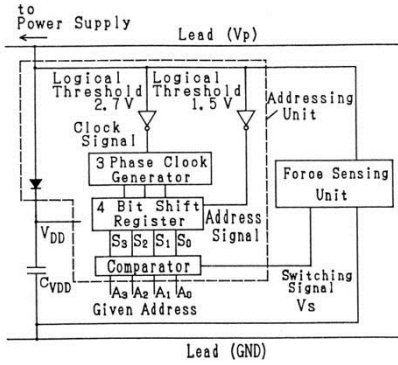
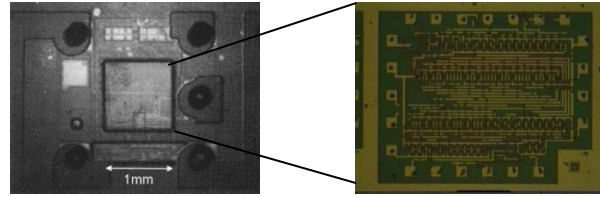
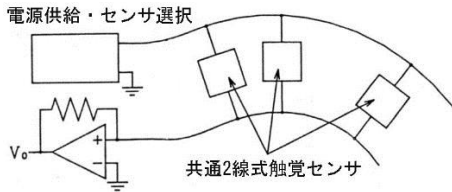


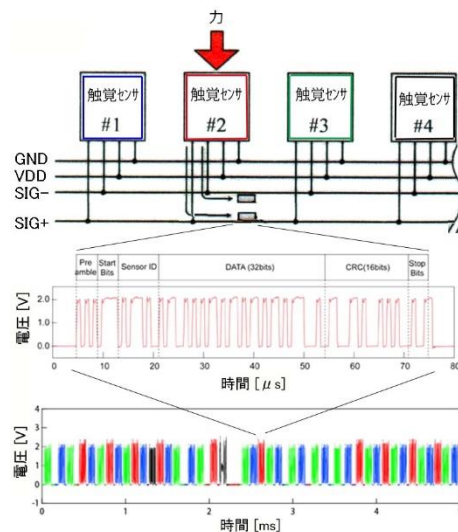
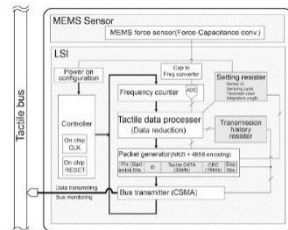
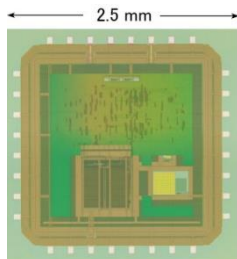
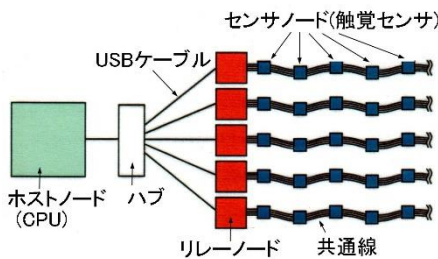
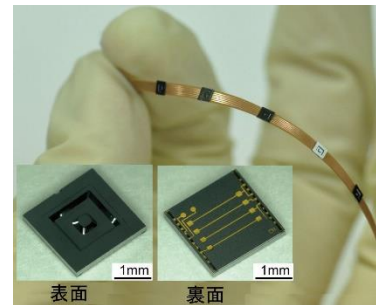
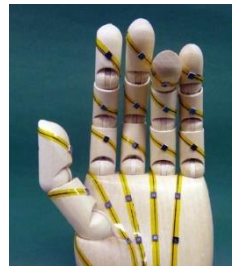
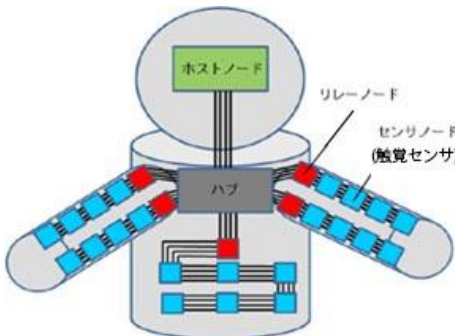
触覚センサネットワーク

電源供給・センサ選択



共通 2 線式触覚センサアレイ (ポーリング型) トランジスタ数は最大 1000 個/チップ
 (企業では、当時 100 万個/チップ、現在 100 億個/チップ)

(S.Kobayashi, T.Mitsui, S.Shoji and M.Esashi : Two-Lead Tactile Sensor Array Integrated CMOS Interface Circuits, Using Piezoresistive Effect of MOS Transistor, Technical Digest of the 9th Sensor Symposium,(1990) 137-140)



触覚センサネットワーク (イベントドリブン型) (トヨタ自動車、豊田中央研究所との共同研究)

(M. Makhata, S. Tanaka, M. Muroyama, S. Matsuzaki, H. Yamada, T. Nakayama, U. Yamaguchi, K. Mima, Y. Nonomura, M. Fujiyoshi and M. Esashi : Integration and Packaging Technology of MEMS-on-CMOS Capacitive Tactile Sensor for Robot Application Using Thick BCB Isolation Layer and Backside-grooved Electrical Connection, Sensors and Actuators A, 188 (2012) 103-110)