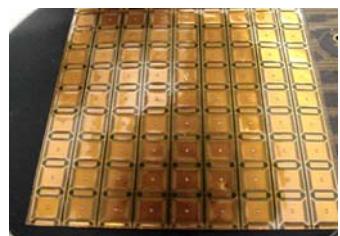
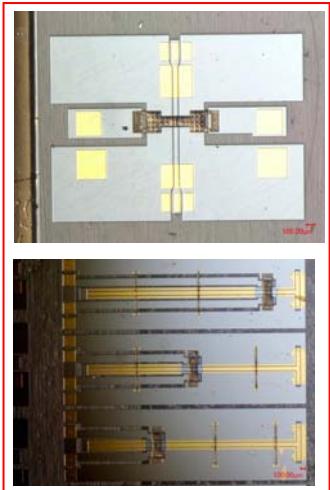
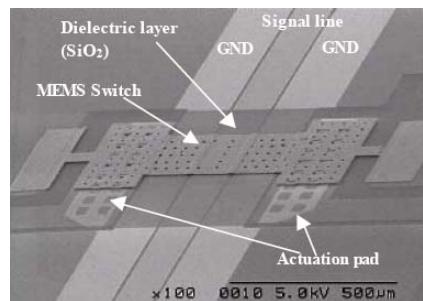
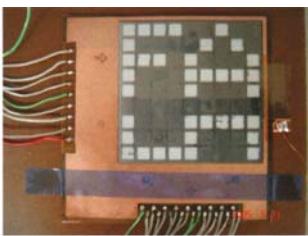


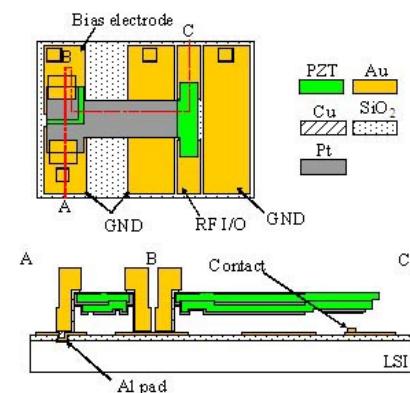
MEMS Switch (Electrostatic and Piezoelectric)



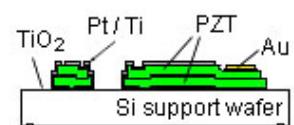
E ink display using electrostatically actuated
MEMS switch (Inside the case)



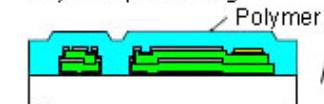
Reference : T.Yuki, J.H.Kuypers, S.Tanaka and M.Esashi, Capacitive RF Switch Fabricated by Low-temperature Surface Process and Packaged Using Dry Film Resist, Proc. of the 24th Sensor Symp. (2007) pp.37–40



Formation of PZT bimorph



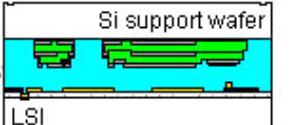
Polymer spin coating



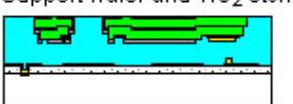
LSI wafer



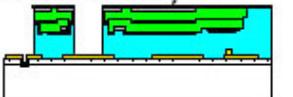
Bonding



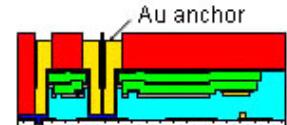
Support wafer and TiO₂ etching



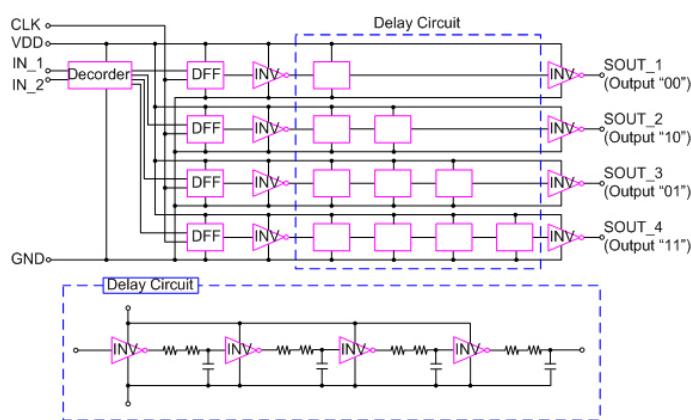
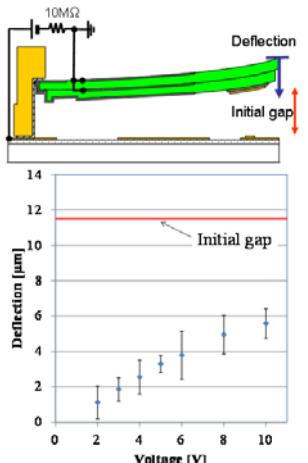
Polymer etching, Al



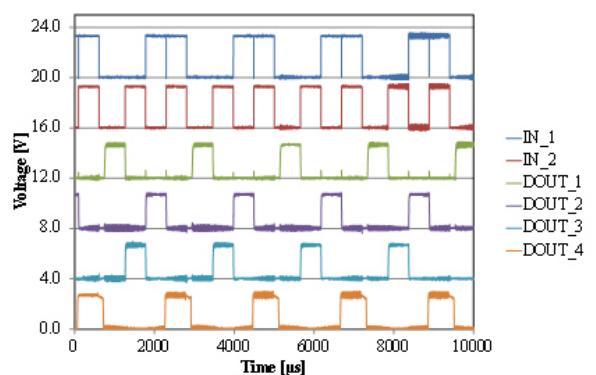
Au electroplating



Sacrificial layer etching



MEMS switch using piezoelectric thin film



Reference : K.Matsuo, M.Moriyama, M.Esashi and S.Tanaka, Low-voltage PZT-actuated MEMS Switch Monolithically Integrated with CMOS Circuit, Technical Digest IEEE MEMS 2012 (2012) pp.1153–1156