

## Supporting Information

# Non-Destructive Readout Complementary Resistive Switches Based on Ferroelectric Tunnel Junctions

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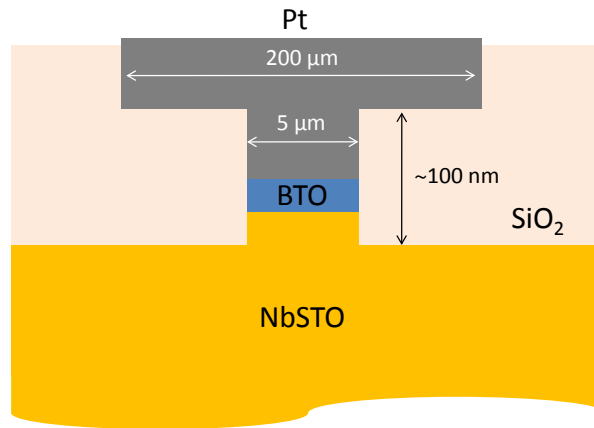


Figure S1. Device structure of the Pt/BTO/NbSTO FTJ.

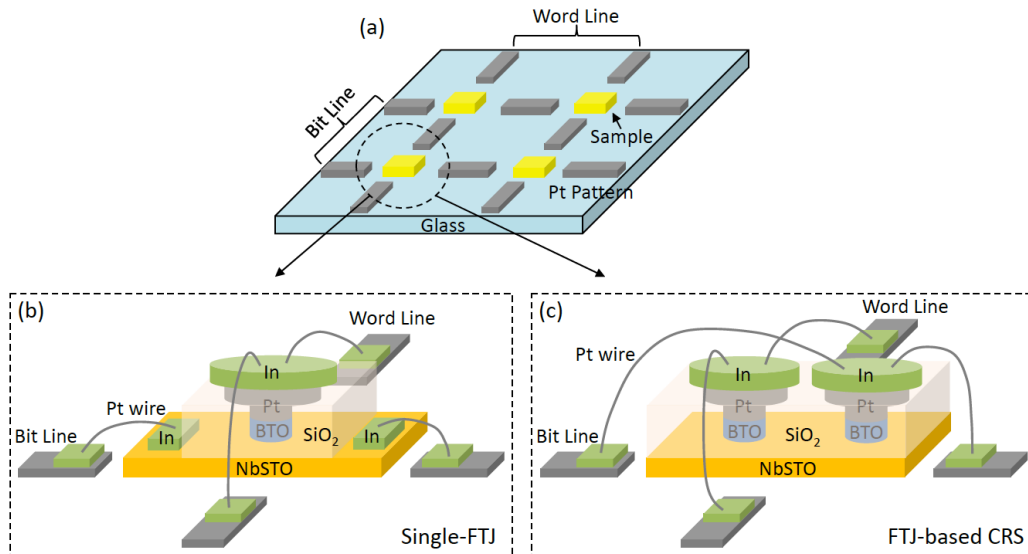


Figure S2. (a) Overall structure of the 2×2 crossbar arrays constituted by (b) the single-FTJ or (c) the FTJ-based CRS devices, respectively.

As shown in Figure S2a, the 2×2 crossbar arrays are built by four single-FTJ or four FTJ-based CRS devices on glass sheets with Pt patterns as the word and the bit lines, respectively. For the single-FTJ array, the top Pt and the bottom NbSTO electrodes are connected to the word and the bit lines, respectively, by Pt wires (Figure S2b). Indium pads are used to ensure the Ohmic contact. For the CRS array, the word line is connected to the Pt electrode of one FTJ element while the Pt electrode of the other element is connected to the bit line, as shown in Figure S2c. The back-to-back in series Pt/BTO/NbSTO complementary cell is thus formed with a common NbSTO electrode.