



Resistive Switching Memories for Logic Circuits Using PCSA

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Abstract— The Non volatile logic (NVL) architecture consists of the complementary non volatile memories and it is based on resistive switching (RS-NVM). The non volatile memories (NVM) are STT-MRAM, OxRRAM, CBRAM, etc.. Non volatile memory means it can get back stored information even when not powered. This improves the efficiency of power and area, it helps the system to be powered off in idle state thereby, eliminates the static power caused by the leakage current. Here the resistive switching non volatile memory RRAM is integrated with non volatile logic device full adder to optimize power and area requirement and involves fast read/write operation. The logic in memory architecture is used for computing purposes and helps to perform complex logic functions.

Keywords: Complementary logic gates, low power, non volatile full adder, resistive switching memories.

