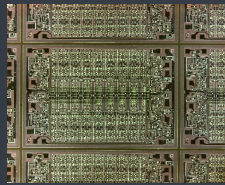


SRAM HISTORY, USES, AND ARCHITECTURE

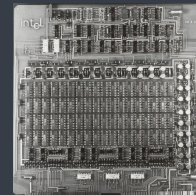
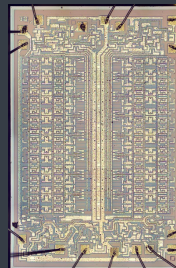
TRAVIS STANGER

HISTORY

- INTEL 3101 64-BIT BIPOLAR SRAM
- INTEL 1101 256-BIT P-CHANNEL SILICON GATE MOS



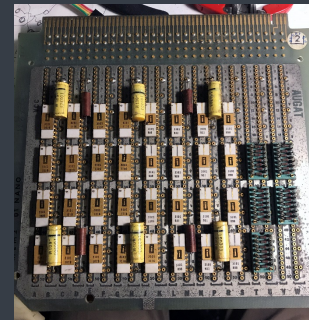
Intel 3101



Intel 1101

FIRST IMPLEMENTATIONS

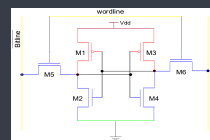
- BURROUGHS D NANOMEMORY BOARD
- DATAPOINT 2200
- XEROX ALTO



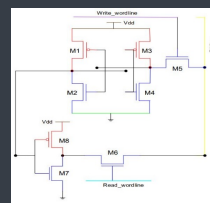
Burroughs D NanoMemory

ARCHITECTURE

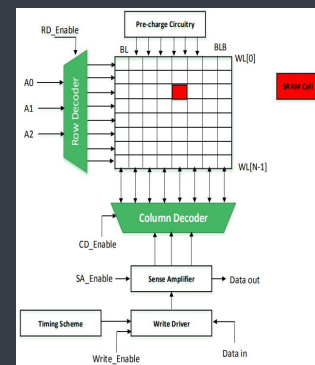
- STANDARD SRAM 6-TRANSISTOR CELL
- 4T, 5T, 6T, 7T, 8T, 9T, 10T, 11T, 12T



4-transistor SRAM cell

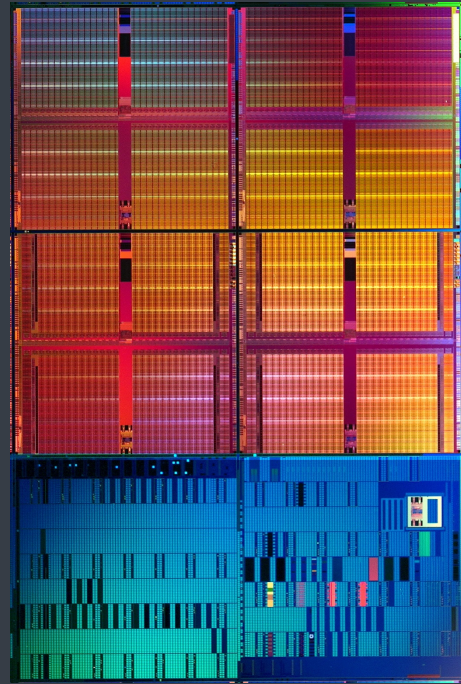
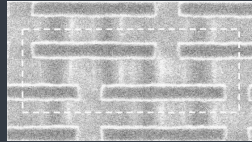


8-transistor SRAM cell



SRAM Block Diagram

45 NANOMETER SRAM CHIP

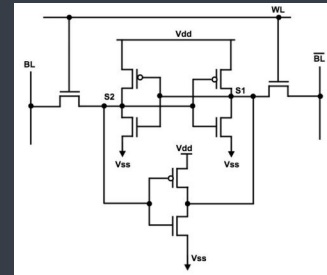


USES

- EMBEDDED SYSTEMS
- SYSTEM RAM—VERY SPECIFIC COMPUTERS
- PROCESSOR CACHE—MEMORY CLOSEST TO THE PROCESSOR

IS IT CHANGING?

- NEW ARCHITECTURE TO DECREASE ERRORS DUE TO CELL CHARGES



AS8 SRAM Architecture

SOURCES

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