

Digital Design (A)

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Flash Memory

- Flash memory is used for storage and for transefering data from computer to other digital devices.
- It is smallest memory cell size.
- It is a non volatile memory chip.
- it is a typr of EEPROM but it is less expensive than EEPROM.
- Writing on it takes about 50 to 100 ns.
- Erasing takes about milliseconds to minutes.
- It is simillar to MOSFET but has two channels.
- It is composed of NAND or NOR gates.

- NAND is faster than NOR and has lower cost and requires less chip area per cell.
- The shelf life of NAND gate is approximately 100,000 write/erase cycles.
- The shelf life of NOR gate is from 10,000 to 1,000,000 write/erase cycles.
- Used in digital cameras, mobile phones, laptops...etc.