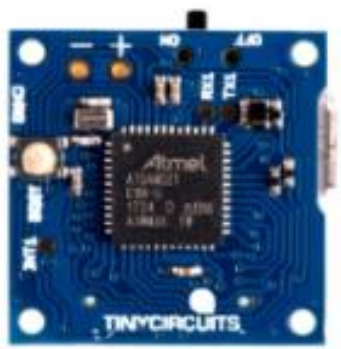
CSE

Microcontroller Application



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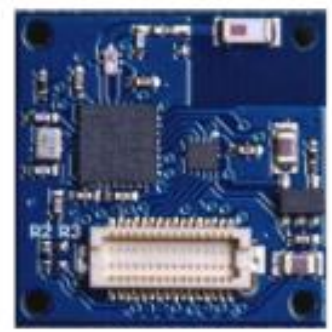

1 – ACCORDING TO BITS

4-BIT MICROCONTROLLERS

- ALU performs arithmetic and logical operations on a nibble (4-bits) at an instruction.
- Internal bus width of 4-bit.
- Small size, minimum pin count and low cost controllers.
- Low power consumption and used for low end applications like LED & LCD display drivers, portable battery chargers.
- Examples: Renasa M34501 256 and ATAM862 series from ATMEL.

8-BIT MICROCONTROLLER

- ALU performs arithmetic and logical operations on a byte (8-bits) at an instruction.
- Internal bus width of 8-bit.
- Examples: Intel 8051 family and Motorola MC68HC11 family.

16-BIT MICROCONTROLLER

- ALU performs arithmetic and logical operations on a word (16-bits) at an instruction.
- Internal bus width of 16-bit microcontroller is of 16-bit.
- Enhanced performance, computing capability and greater precision as compared to the 8-bit microcontrollers.
- Examples: Intel 8096 family, Motorola MC68HC12 and MC68332 families.

Thank You