

CPE/EE 421/521
Fall 2004
Chapter 1 – The Microcomputer

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Chapter 1

CPE/EE 421/521

Microcomputer

-
- A microcomputer is defined as _____

 - An embedded computer is one _____
_____ and which is normally _____ to the user of the system in which it is located.
 - Examples of embedded computers are
 - _____
 - _____
 - _____

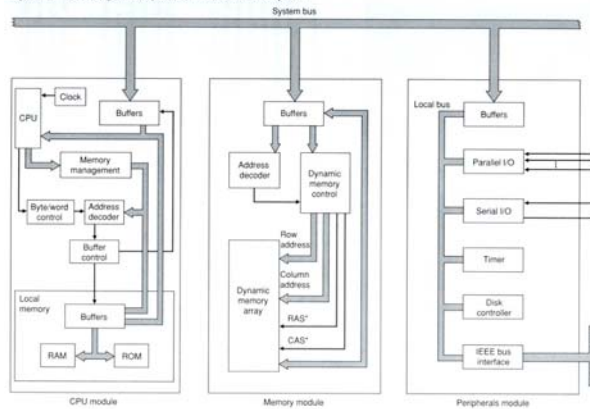
1.1 Microprocessor Systems

- Two Types

- _____
- _____

1.1 Microprocessor Systems – Modular, General Purpose Computer

Figure 1.1 Block diagram of a possible modular microcomputer



1.1 Microprocessor Systems

- Modules in a General Purpose Computer

- _____
- _____
- _____

1.1 Microprocessor Systems - CPU Module

- Clock and Control - _____

- Address Decoder -

- _____
- _____
- _____

- Address and Data Buffers

- _____

- Buffer Control - _____

- Bus Arbitration - _____

- Memory Management

- _____
- _____
- _____
- _____

1.1 Microprocessor Systems - Memory Module

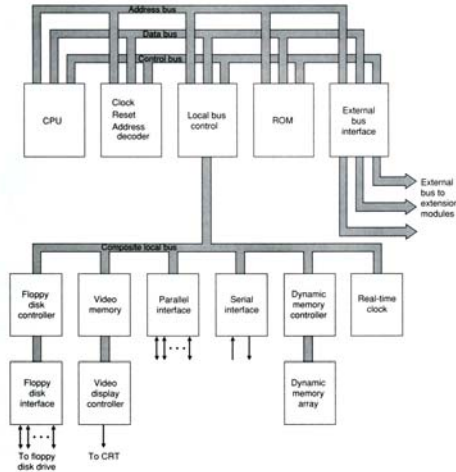
- ROM
 - _____
- RAM
 - _____
 - _____

1.1 Microprocessor Systems - Peripherals Module

- Serial Port
 - _____
- Parallel Port
 - _____
- Timer
 - _____
 - _____
- Disk Controller
 - _____
- Bus Controller
 - _____

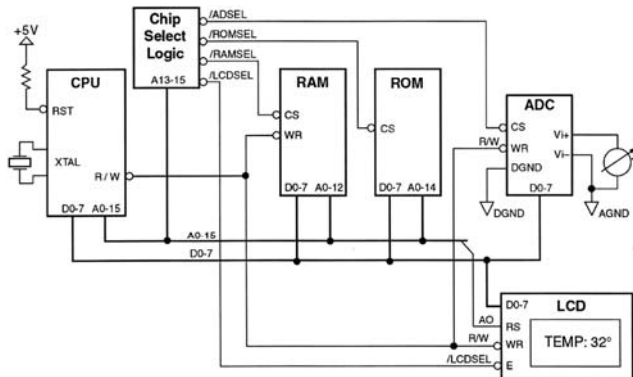
1.2 Examples of Microprocessor Systems – Personal Computer

Figure 1.4 Block diagram of a personal computer



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1.2 Examples of Microprocessor Systems – Digital Thermometer

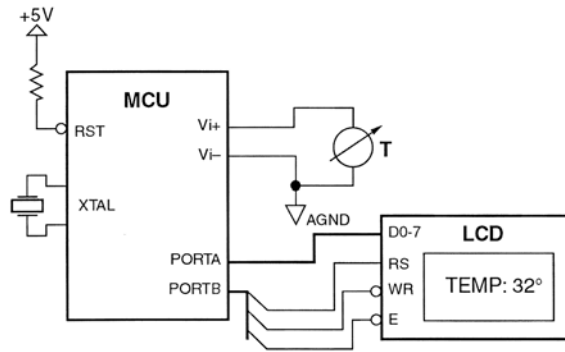


Todd D. Morton
Embedded Microcontrollers

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1.2 Examples of Microprocessor Systems - MCU Digital Thermometer



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