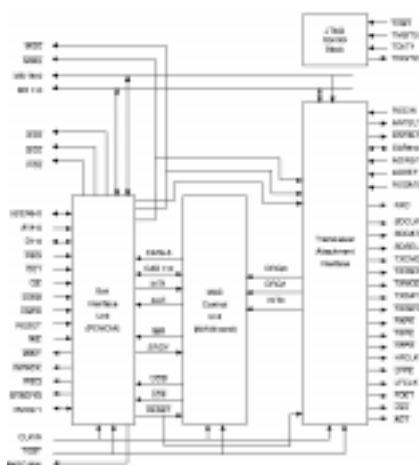


### 3. Proposed Architecture & Features

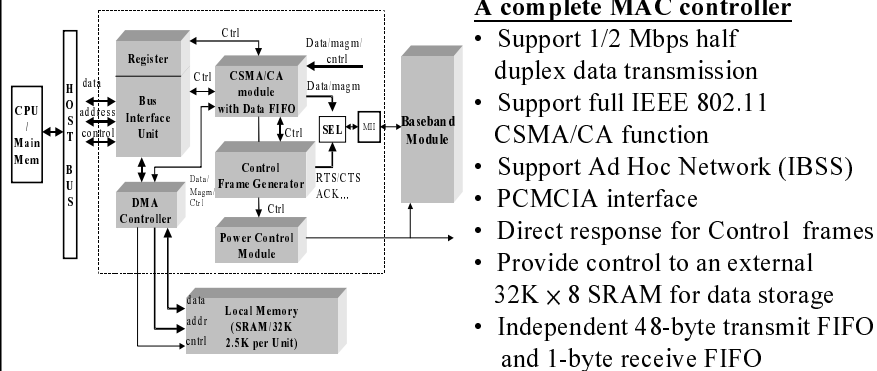
- CPU-based Architecture versus specially-designed Architecture
- Features of our design

### CPU-Based Architecture



- Support the IEEE 802.11 features with a 80188 microprocessor core
- PCMCIA or ISA interface for the Host system
- Flash Memory interface to access ROM code as well as the registers
- Independent 8-byte transmit FIFO and 15-byte receive FIFO
- A design by CCL organizes the external SRAM into 2 Tx buffers and 6 Rx buffers.

## Proposed Architecture and Features



## Pro and Cons

- *CPU-Based Architecture*
  - Disadvantages
    - Complexity
    - High cost
  - Advantages
    - Flexible to standard revision, if the CPU core is available
- *Specially-Design Architecture*
  - Advantages
    - Simple
    - Low cost
    - high speed
    - Facilitate joint simulation with Baseband/IF/RF
  - Disadvantages
    - Non-flexible to standard revision (IEEE 802.11 MAC remains unchanged in the coming revision)