

**R8800**  
**Brief Sheet**  
**16-BIT RISC MICROCONTROLLER**

## 1. Features

### I CPU Core

- RDC's proprietary RISC architecture
- Five-stage pipeline
- CPU clock speed up to 40 MHz
- Supports CPU ID
- Supports 32 PIO pins
- Static & synthesizable design

### I Bus Interface

- A multiplexed address and data bus which is compatible with the 80C188 microprocessor
- Supports a non-multiplexed address bus A[19:0]

### I ROM/RAM Controller and Addressing Space

- 1M-byte memory address space
- 64K-byte I/O space

### I PSRAM Interface

- PSRAM (Pseudo static RAM) interface with auto-refresh control

### I Two Independent DMA Channels

### I Asynchronous Serial Channel

- Supports one asynchronous serial channel with one synchronous serial channel

### I Interrupt Controller

- The Interrupt controller with five maskable

external interrupts and 1 non-maskable external interrupt

### I Programmable Chip-select Logic

- Programmable chip-select logic for memory or I/O bus cycle decoder

### I Programmable Wait-state Generator

### I Counter/Timers

- 3 independent 16-bit timers and Timer 1 can be programmed as a watchdog timer

### I Software compatible with the 80C188 microprocessor

### I Operating Voltage Range

- Core voltage: 5V ± 5%
- I/O voltage: 5V ± 10%

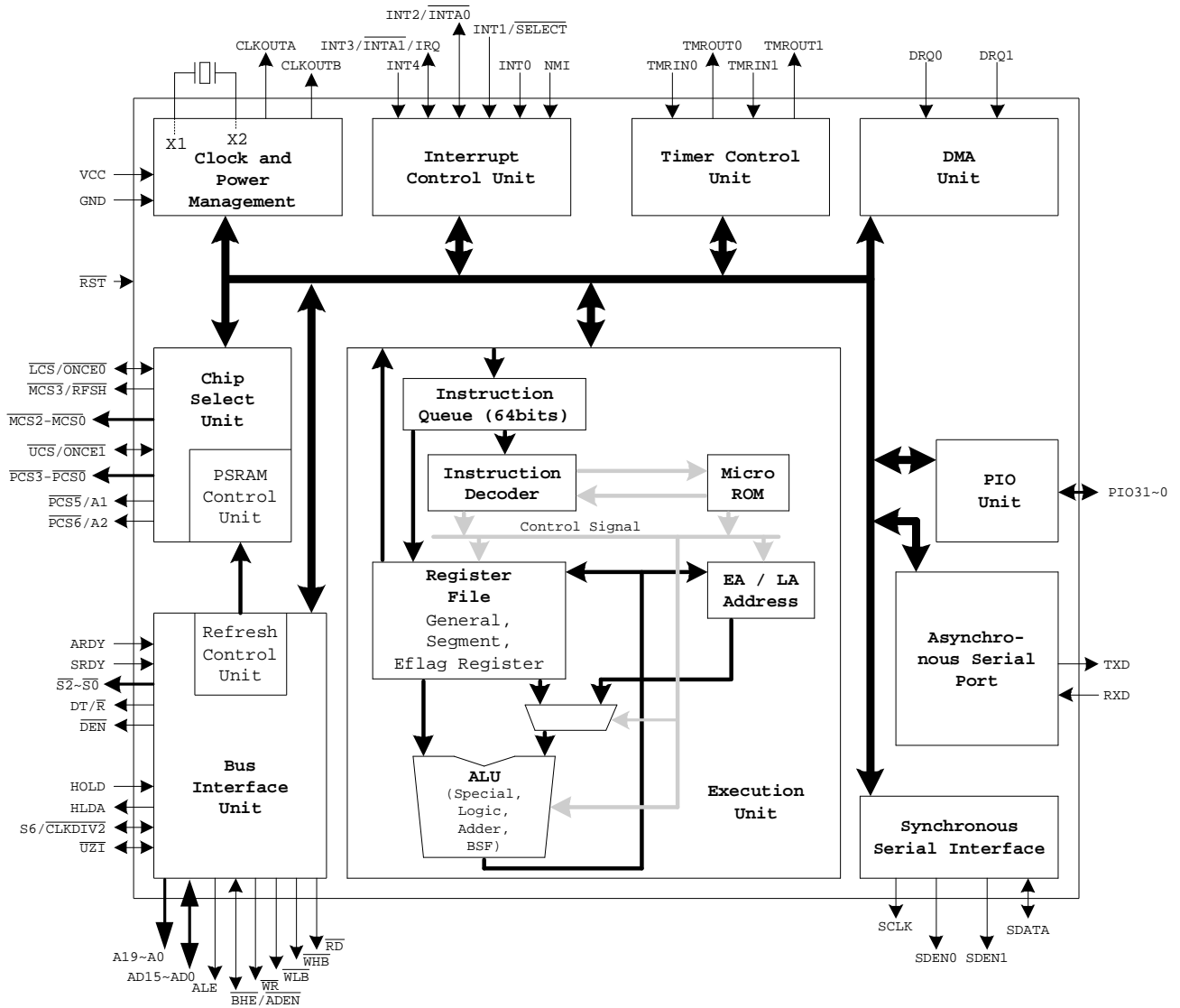
### I Ambient Temperature: 0 ~ +70°C

### I Package Type

- 100-pin PQFP
- 100-pin LQFP

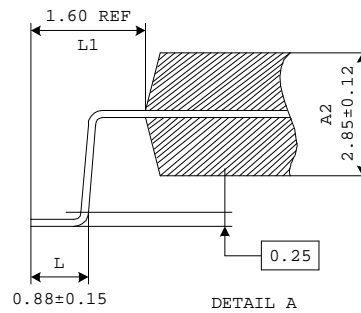
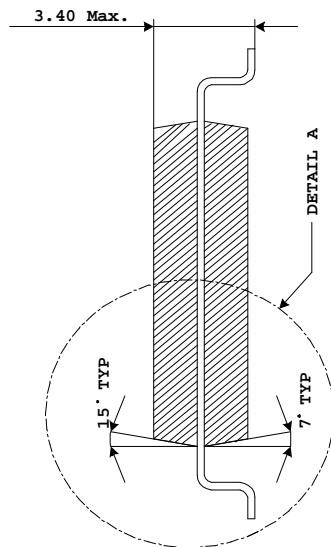
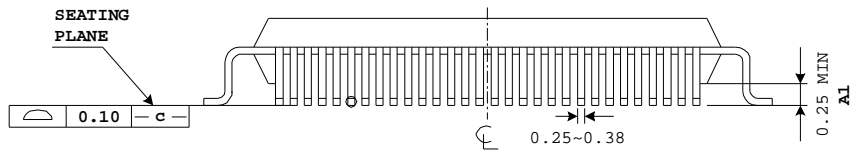
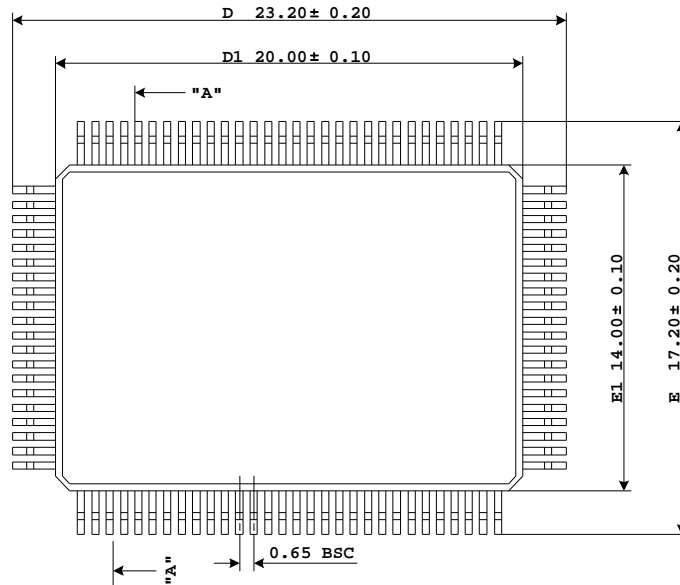
### I A Green Product

## 2. Block Diagram



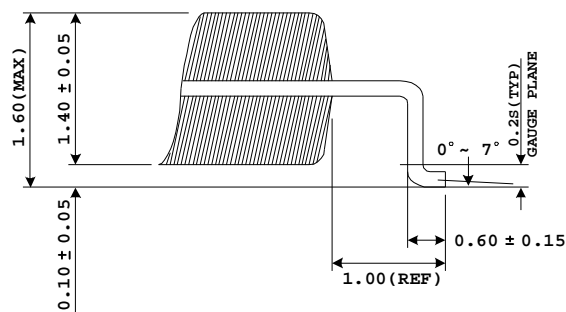
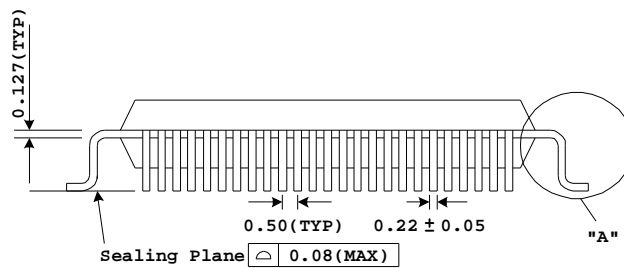
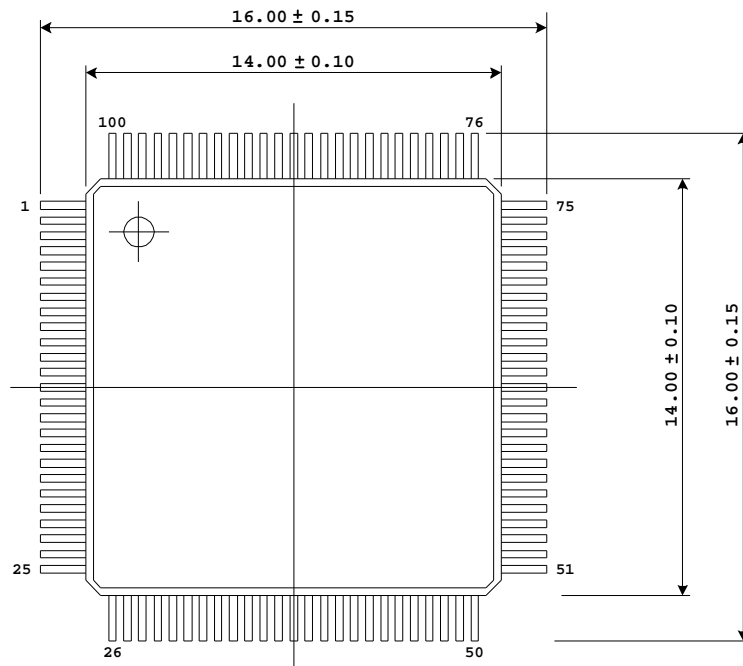
3. Package Information

PQFP 100 pins



UNIT : mm

LQFP 100 pins



UNIT : mm