W5610
Brief Sheet
32 BIT RISC MICRO PROCESSOR

1 Features

CPU Core

- RDC's proprietary 32 bit RISC architecture
- 6 stage pipeline architecture
- Operation frequency: 166 MHz
- Supports a 16K-byte cache

Parallel Flash ROM

- Supports 16-bit data bus width
- Parallel Flash ROM control interface up to 2M*16bits

SDRAM Controller

- Supports 16-bit data bus width
- SDRAM control interface up to 64MB

DMA Controller

- Provides two 8237 DMA compatible controllers which are cascaded internally
- 4 channels for 8-bit DMA transfer and 3 channels for 16-bit transfer

Interrupt Controller

- Provides two 8259 compatible interrupt controllers which are cascaded internally
- Independent programmable level / edge-triggered interrupt channels

Counter/Timers

- 8254 compatible timers
- Supports a watchdog timer (WDT)

High Performance UART Ports

- Supports 1 high performance UARTs with send / receive 16-byte FIFOs
- Programmable baud rate generator
- The data rates are programmable from 50 to 460.8K baud (max. to 1Mbps)
- The character options are programmable for 1 start bit; 1, 1.5 or 2 stop bits; even, odd or no parity, 5~8 data bits

RDC Debug Tool Support

- RDC debug tool with a JTAG-like interface

General Programmable I/O

- 29 PINs programmable I / O ports
- Pins individually configurable to input or output mode

Two 10/100M Fast Ethernet MAC Ports

- IEEE 802.3u MII interface
- IEEE 802.3x flow control in full-duplex mode
- Internal loop-back self-test circuit support
- Descriptor architecture for packet TX / RX

Wireless 802.11 a/b/g MAC+BBP

- 802.11 a / b / g standard compliant
- 802.11 d / h / i / j standard compliant
- DSSS / CCK modulation 1, 2, 5.5, 11 Mbps
- OFDM 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- WEP 64 / 128 / 256 bits
- WPA, WPA2
- 802.1x Supplicant
- WiFi WMM support

Operating Voltage Range

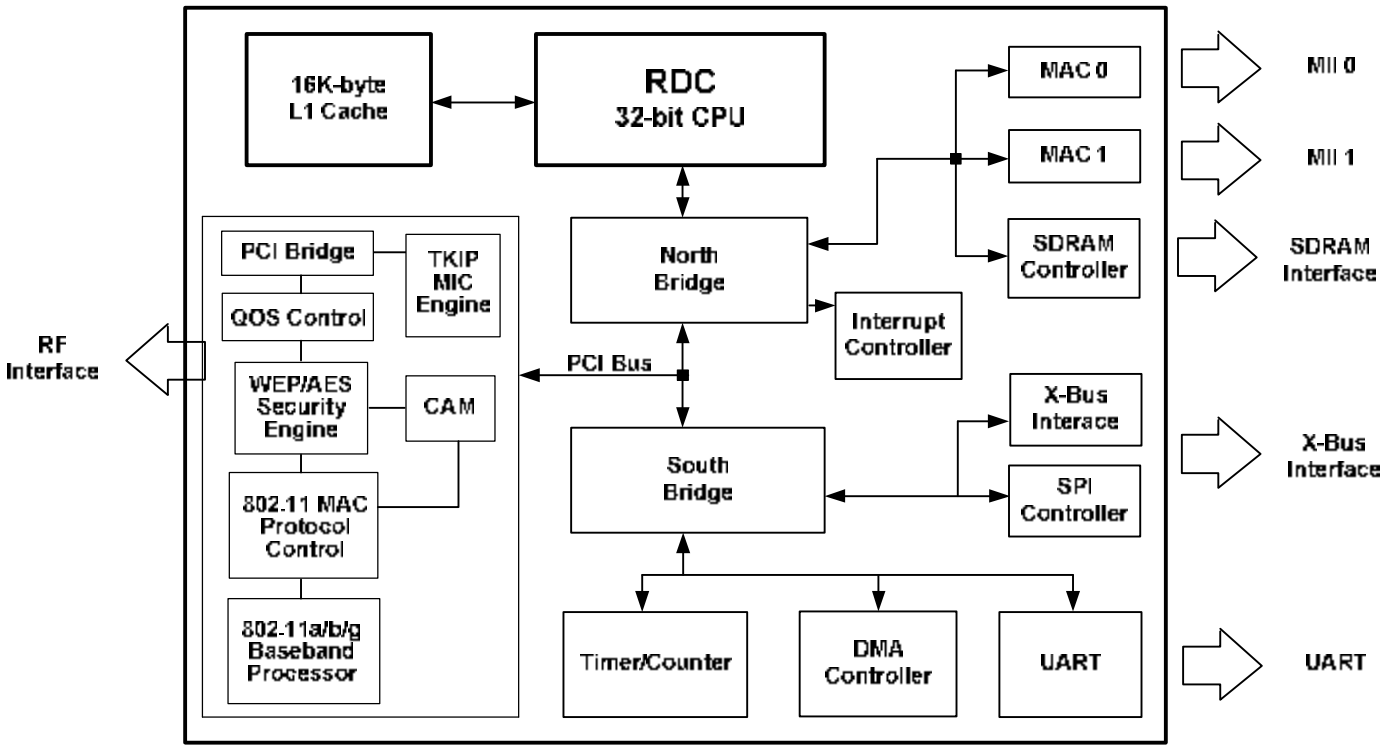
- Core voltage: 1.8V ± 5%
- I / O voltage: 3.3V ± 10%

Ambient Temperature: 0 ~ +70°C

Package Type

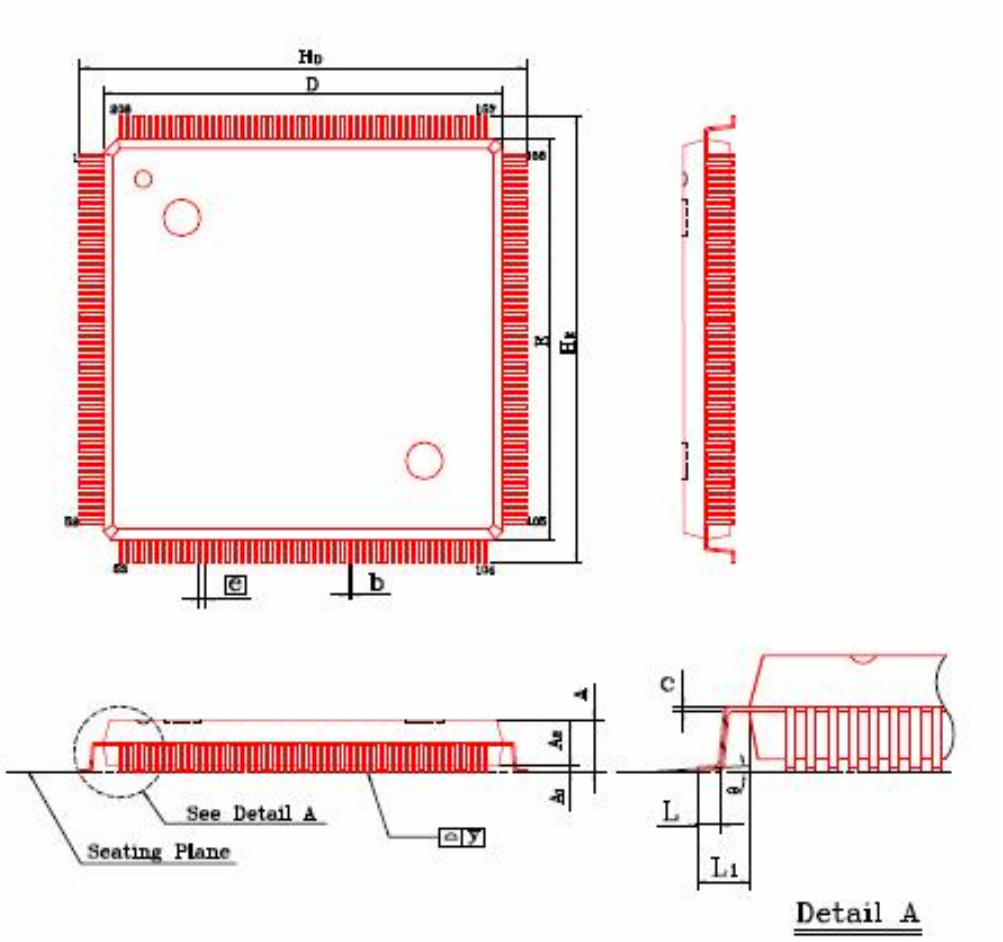
- 208-pin PQFP

2 Block Diagram



3 Package Information

208-pin PQFP



Symbol	Dimension in inch			Dimension in mm		
	Min	Nom	Max	Min	Nom	Max
A	—	—	0.160	—	—	4.07
A_1	0.010	—	—	0.25	—	—
A_2	0.124	0.127	0.130	3.15	3.23	3.30
b	0.007	—	0.011	0.18	—	0.28
c	0.005	—	0.009	0.13	—	0.23
D	1.098	1.102	1.106	27.90	28.00	28.10
E	1.098	1.102	1.106	27.90	28.00	28.10
e	0.020 BSC			0.50 BSC		
H_D	1.219	1.228	1.238	30.95	31.20	31.45
H_E	1.219	1.228	1.238	30.95	31.20	31.45
L	0.026	0.031	0.037	0.65	0.80	0.95
L_1	0.063 REF			1.60 REF		
y	—	—	0.004	—	—	0.10
θ	0°	—	7°	0°	—	7°

Note:
1. Dimension D & E do not include interlead flash.
2. Dimension b does not include dambar protrusion/intrusion.
3. Controlling dimension : Millimeter
4. General appearance spec. should be based on final visual inspection spec.