

W5610
Brief Sheet
32 BIT RISC MICRO PROCESSOR

1 Features

I CPU Core

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

I Parallel Flash ROM

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

I SDRAM Controller

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

I 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

I Interrupt Controller

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

I Counter/Timers

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

I 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

I RDC Debug Tool Support

- RDC debug tool with a JTAG-like interface

I General Programmable I/O

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

I 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

I 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

I Operating Voltage Range

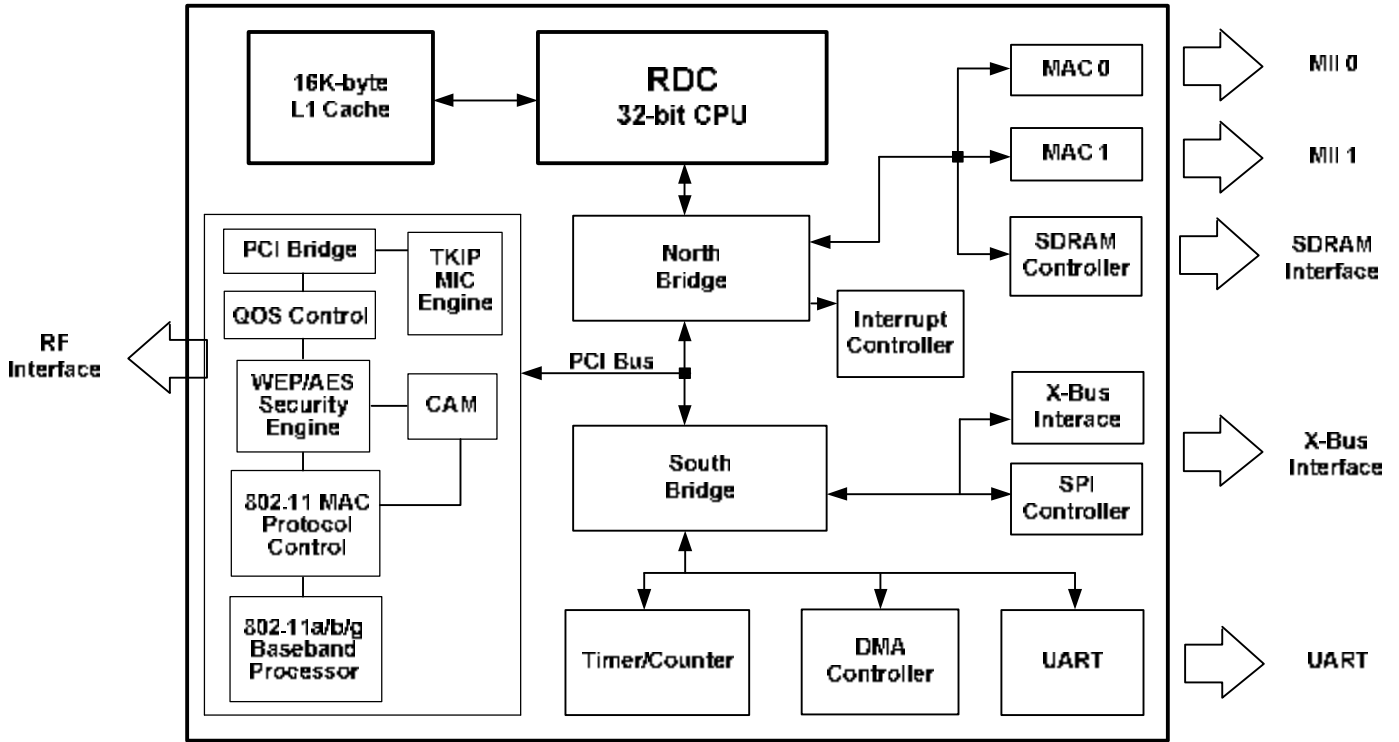
- Core voltage: 1.8V ± 5%
- I/O voltage: 3.3V ± 10%

I Ambient Temperature: 0 ~ +70°C

I Package Type

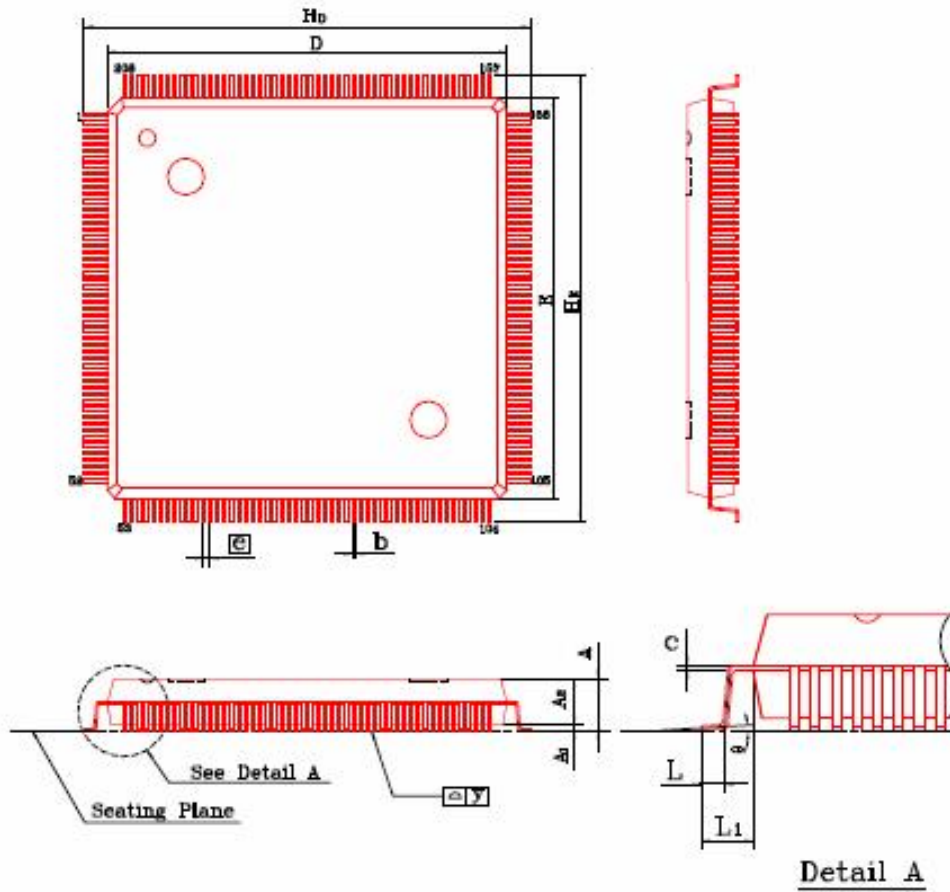
- 208-pin PQFP

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
\square	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		
γ	—	—	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.