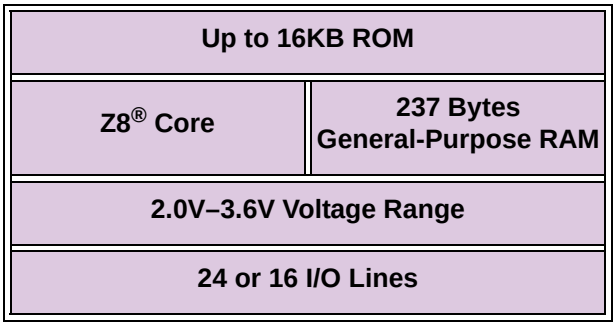
Crimzon™ ZLR16300

Z8 ROM MCU with Infrared Timers

PB012101-1103

Product Brief

Product Block Diagram



Features

- Low power consumption–6MW (typical)
- Three standby modes
  - STOP—2μA (typical)
  - HALT—0.8mA (typical)
  - Low voltage
- Special architecture to automate both generation and reception of complex pulses or signals:
  - One programmable 8-bit counter/timer with two capture registers and two load registers
  - One programmable 16-bit counter/ timer with one 16-bit capture register pair and one 16-bit load register pair
  - Programmable input glitch filter for pulse reception
- Six priority interrupts
  - Three external
  - Two assigned to counter/timers
  - One low-voltage detection interrupt
- High and Low voltage detection flags
- Programmable Watch-Dog Timer (WDT)
- Power-On Reset (POR) circuits
- Two independent comparators with programmable interrupt polarity
- Mask selectable pull-up transistors on ports 0, 2, 3
- Programmable mask options
  - Port 0: 0–3 pull-ups
  - Port 0: 4–7 pull-ups
  - Port 2: 0–7 pull-ups
  - Port 3: 0–3 pull-ups

General Description

The ZLR16300 is a ROM-based member of the Crimzon™ MCU family of infrared microcontrollers. With 237 bytes of general-purpose RAM and up to 16KB of ROM, ZiLOG's CMOS microcontrollers offer fast executing, efficient use of memory, sophisticated interrupts, input/output bit manipulation capabilities, automated pulse generation/reception, and internal key-scan pull-up transistors.

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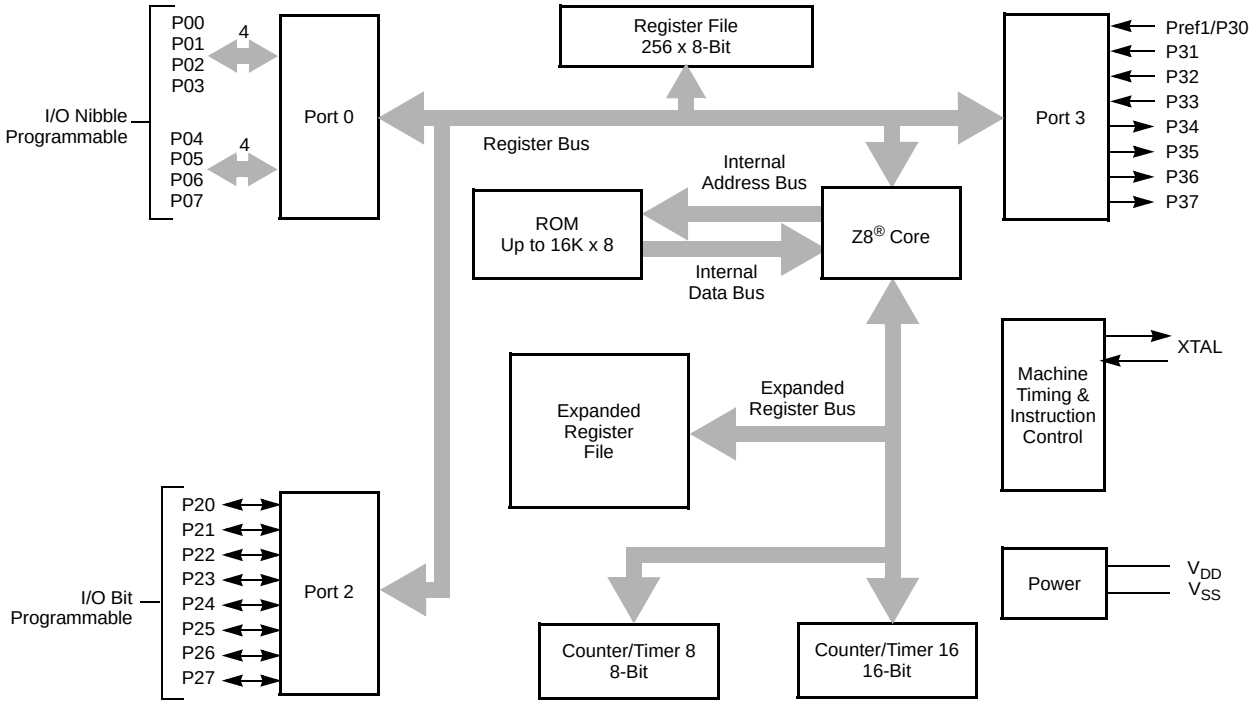

Figure 1. Functional Block Diagram

Note: 20-pin version of the ZLR16300 does not contain P02–P06, P35 or P37.

Pin-Outs

Figure 2 illustrates the pins for the 20-pin ZLR16300. Figure 3 illustrates the pins for the 28-pin ZLR16300 Family.

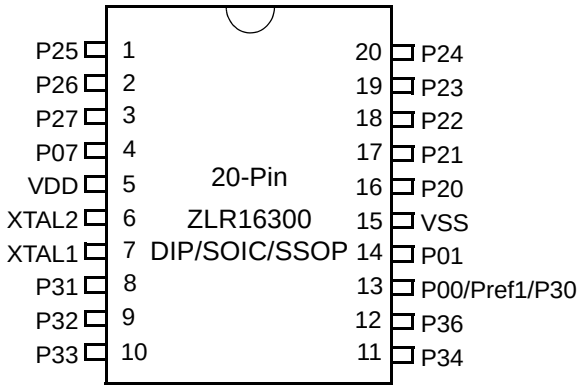

Figure 2. 20-Pin DIP/SOIC/SSOP Pin Assignment

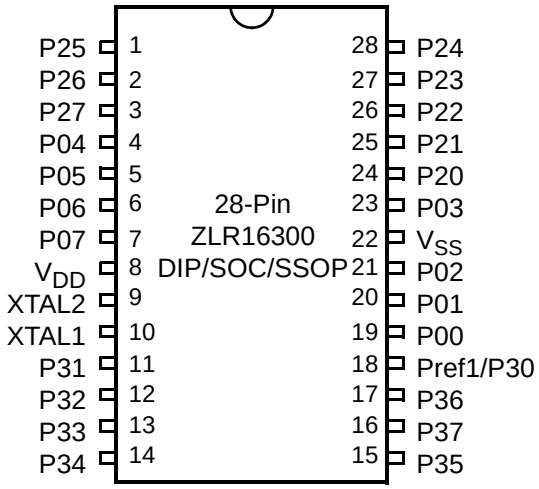

Figure 3. 28-Pin DIP/SOIC/SSOP Pin Assignment

Development Suite

The following development tools are available for the programming and debugging of this device:

- ZiLOG Developer Studio II (ZDSII)
- ZLP323ICE00ZEM emulator/programmer ZLP32300100KIT development kit
- ZLP32300USLKIT Crimzon RC Bullet North America 6 in 1 universal remote control with learning function

Ordering Information

Device	Part Number	Description
ZLR16300	ZLR16300H2816	28-pin SSOP 16K ROM
	ZLR16300H2808	28-Pin SSOP 8K ROM
	ZLR16300H2804	28-Pin SSOP 4K ROM
	ZLR16300P2816	28-pin DIP 16K ROM
	ZLR16300P2808	28-pin DIP 8K ROM
	ZLR16300P2804	28-pin DIP 4K ROM
	ZLR16300S2816	28-pin SOIC 16K ROM
	ZLR16300S2808	28-pin SOIC 8K ROM
	ZLR16300S2804	28-pin SOIC 4K ROM
	ZLR16300H2016	20-pin SSOP 16K ROM
	ZLR16300H2008	20-pin SSOP 8K ROM
	ZLR16300H2004	20-pin SSOP 4K ROM
	ZLR16300P2016	20-pin DIP 16K ROM
	ZLR16300P2008	20-pin DIP 8K ROM
	ZLR16300P2004	20-pin DIP 4K ROM
	ZLR16300S2016	20-pin SOIC 16K ROM
	ZLR16300S2008	20-pin SOIC 8K ROM
	ZLR16300S2004	20-pin SOIC 4K ROM

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