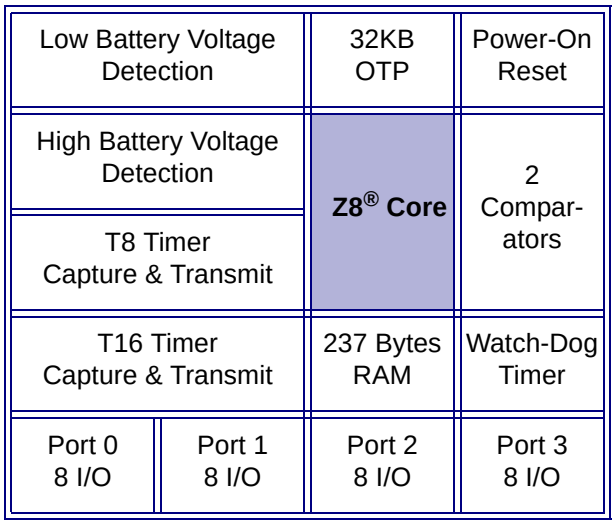
Crimzon™ Infrared Microcontrollers

ZLP32300 OTP MCU Family

Product Brief

PB012003-0704 PRELIMINARY

Product Block Diagram



Features

- 2.0–3.6V operation
- Low power consumption–6mW (typical)
- Three standby modes:
  - STOP—2µA (typical)
  - HALT—0.8mA (typical)
  - Low voltage reset
- 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 capture register and two reload registers
  - Programmable input glitch filter for pulse reception
- Six priority interrupts
  - Three external
  - Two assigned to counter/timers
  - One low-voltage detection interrupt
- Low voltage detection and high voltage detection flags
- Programmable Watch-Dog Time
- Power-On Reset (POR) circuits
- Two independent comparators with programmable interrupt polarity
- Programmable EPROM options
  - Port 0: 0–3 pull-up transistors
  - Port 0: 4–7 pull-up transistors
  - Port 1: 0–3 pull-up transistors
  - Port 1: 4–7 pull-up transistors
  - Port 2: 0–7 pull-up transistors
  - EPROM Protection
  - WDT enabled at POR

General Description

The ZLP32300 is an OTP-based member of the Crimzon MCU family of infrared microcontrollers. With 237 bytes of general-purpose RAM and up to 32KB of OTP, 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.

Compatible with ZLR16300 and ZLR32300 mask ROM families.

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Block Diagram

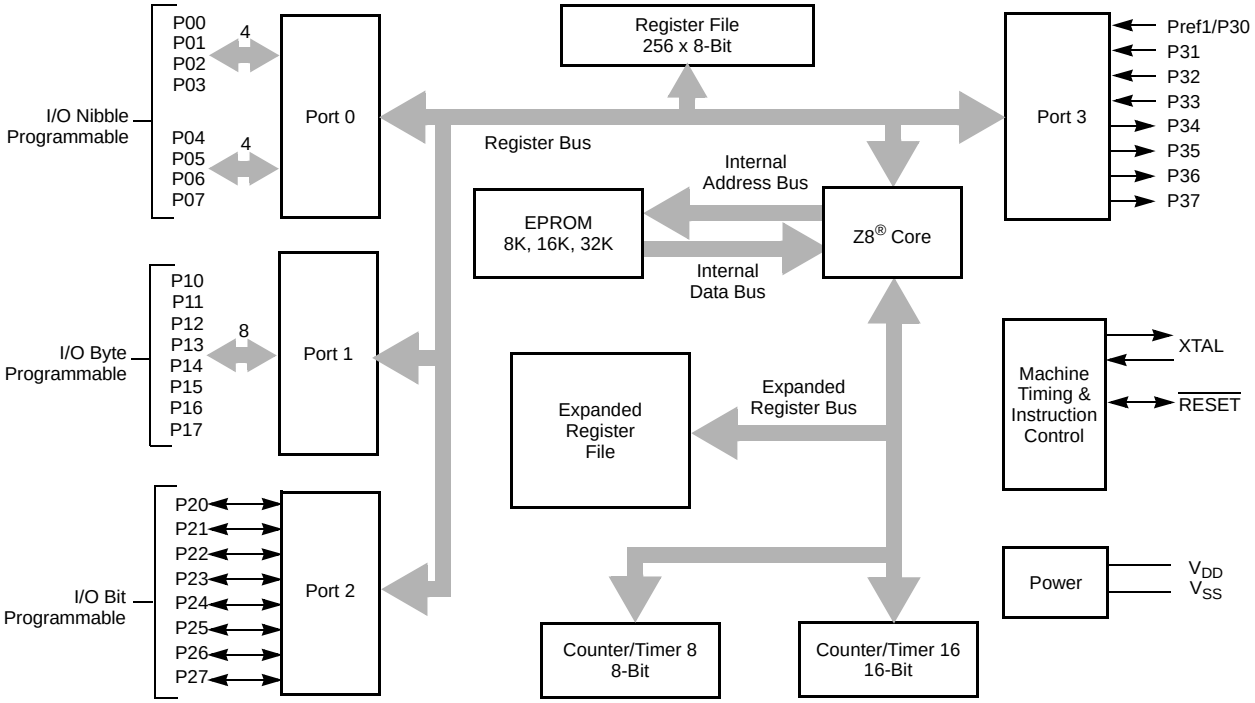

Figure 1. Functional Block Diagram

Pin-Outs

Figure 2 depicts the pins for the 20-pin ZLP32300. Figure 3 depicts the pins for the 28-pin ZLP32300. Figure 4 and Figure 5 depict the pins for the 40-pin and 48-pin versions of the ZLP32300.

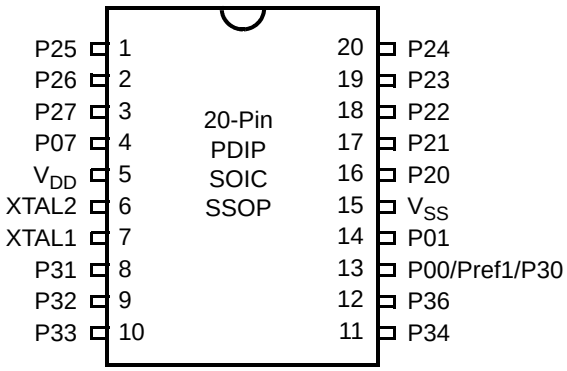

Figure 2. 20-Pin DIP/SOIC/SSOP Pin Assignment

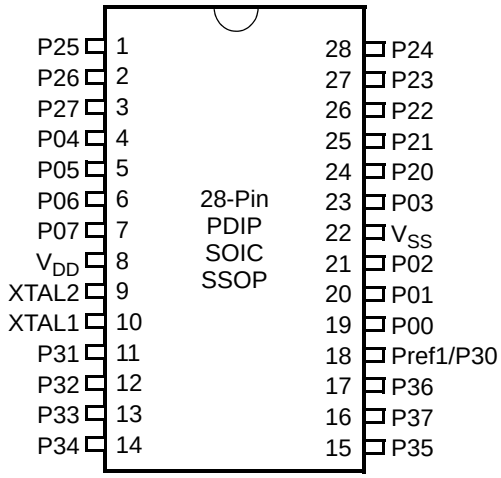

Figure 3. 28-Pin DIP/SOIC/SSOP Pin Assignment

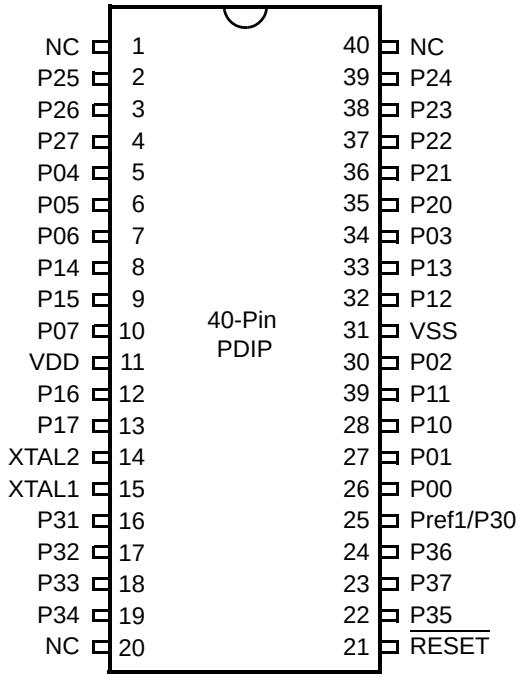

Figure 4. 40-Pin PDIP Pin Assignment

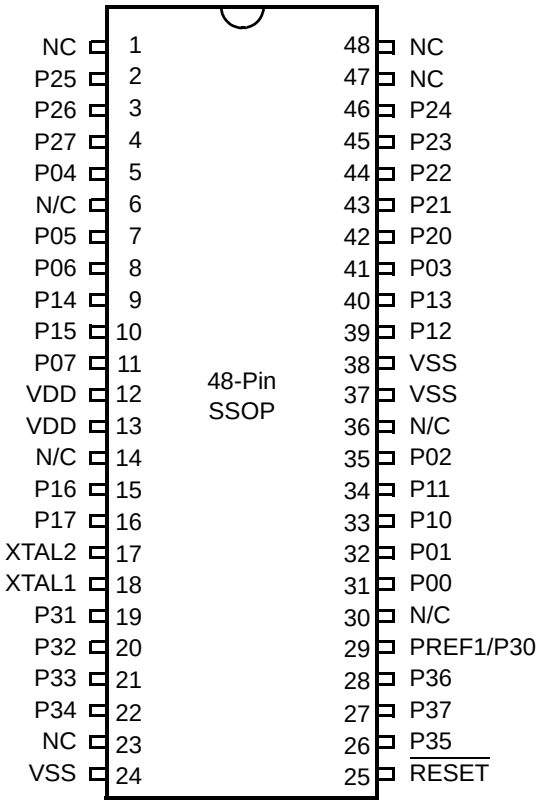

Figure 5. 48-Pin SSOP Assignment

Development Suite

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

- ZLP323ICE01ZEM emulator/programmer
- ZLP32300100KIT Development Kit
- ZiLOG Developer Studio II (ZDSII)

Ordering Information

Part Number	Description	Part Number	Description
ZLP32300H4832	48-pin SSOP 32K OTP	ZLP32300H4808	48-pin SSOP 8KOTP
ZLP32300P4032	40-pin PDIP 32K OTP	ZLP32300P4008	40-pin PDIP 8K OTP
ZLP32300H2832	28-pin SSOP 32K OTP	ZLP32300H2808	28-pin SSOP 8K OTP
ZLP32300P2832	28-pin PDIP 32K OTP	ZLP32300P2808	28-pin PDIP 8K OTP
ZLP32300S2832	28-pin SOIC 32K OTP	ZLP32300S2808	28-pin SOIC 8K OTP
ZLP32300H2032	20-pin SSOP 32K OTP	ZLP32300H2008	20-pin SSOP 8K OTP
ZLP32300P2032	20-pin PDIP 32K OTP	ZLP32300P2008	20-pin PDIP 8K OTP
ZLP32300S2032	20-pin SOIC 32K OTP	ZLP32300S2008	20-pin SOIC 8K OTP
ZLP32300H4816	48-pin SSOP 16K OTP	ZLP32300100KIT	Development Kit
ZLP32300P4016	40-pin PDIP 16K OTP	ZLP323ICE01ZEM	Emulator
ZLP32300H2816	28-pin SSOP 16K OTP		
ZLP32300P2816	28-pin PDIP 16K OTP		
ZLP32300S2816	28-pin SOIC 16K OTP		
ZLP32300H2016	20-pin SSOP 16K OTP		
ZLP32300P2016	20-pin PDIP 16K OTP		
ZLP32300S2016	20-pin SOIC 16K OTP		

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