

ZGR323L ROM MCU Family

Product Brief

PB015310-0208

Overview

Zilog's ZGR323L is a ROM-based member of the family of general-purpose microcontrollers. With 237 bytes of general-purpose RAM and up to 32 KB of ROM, Zilog's CMOS microcontrollers offer fast-executing use of memory, sophisticated interrupts, input/output bit manipulation, automated pulse generation/reception, and internal key-scan pull-up transistors. ZGR323L is compatible with Zilog's ZGR163L/ZGP323L families.

Product Block Diagram

Watchdog Timer		Up to 32 KB ROM	Power-On Reset
T8 Timer Capture & Transmit		Z8® Core	2 Comparators
T16 Timer Capture & Transmit		Low Battery Voltage Detection	
237B General-Purpose RAM		High Battery Voltage Detection	
Port 0 8 I/O	Port 1 8 I/O	Port 2 8 I/O	Port 3 8 I/O

Features

Features of ZGR323L include:

- 2.0 V to 3.6 V operation
- Low power consumption—6 mW (typical)
- Three standby modes:
 - STOP—2 µA (typical)
 - HALT—0.8 mA (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 and high-voltage detection flags
- Programmable Watchdog Timer (WDT)
- Power-On Reset (POR) circuits
- Two independent comparators with programmable interrupt polarity
- Programmable ROM 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
 - Port 3: 0–3 pull-ups
 - WDT enabled at POR
- Standard (0 °C to +70 °C), Extended (-40 °C to +105 °C), and Automotive (-40 ° to +125 °C) temperature ranges

Ordering Information

Order the tools from Zilog®, providing the part numbers as given below:

32 KB Standard Temperature: 0 °C to +70 °C	
Part Number	Description
ZGR323LSH4832G	48-pin SSOP 32K ROM
ZGR323LSP4032G	40-pin PDIP 32K ROM
ZGR323LSH2832G	28-pin SSOP 32K ROM
ZGR323LSP2832G	28-pin PDIP 32K ROM
ZGR323LSS2832G	28-pin SOIC 32K ROM
ZGR323LSH2032G	20-pin SSOP 32K ROM
ZGR323LSP2032G	20-pin PDIP 32K ROM
ZGR323LSS2032G	20-pin SOIC 32K ROM
32 KB Extended Temperature: -40 °C to +105 °C	
Part Number	Description
ZGR323LEH4832G	48-pin SSOP 32K ROM
ZGR323LEP4032G	40-pin PDIP 32K ROM
ZGR323LEH2832G	28-pin SSOP 32K ROM
ZGR323LEP2832G	28-pin PDIP 32K ROM
ZGR323LES2832G	28-pin SOIC 32K ROM
ZGR323LEH2032G	20-pin SSOP 32K ROM
ZGR323LEP2032G	20-pin PDIP 32K ROM
ZGR323LES2032G	20-pin SOIC 32K ROM
32 KB Automotive Temperature: -40 °C to +125 °C	
Part Number	Description
ZGR323LAH4832G	48-pin SSOP 32K ROM
ZGR323LAP4032G	40-pin PDIP 32K ROM
ZGR323LAH2832G	28-pin SSOP 32K ROM
ZGR323LAP2832G	28-pin PDIP 32K ROM
ZGR323LAS2832G	28-pin SOIC 32K ROM
ZGR323LAH2032G	20-pin SSOP 32K ROM
ZGR323LAP2032G	20-pin PDIP 32K ROM
ZGR323LAS2032G	20-pin SOIC 32K ROM

16 KB Standard Temperature: 0 °C to +70 °C	
Part Number	Description
ZGR323LSH4816G	48-pin SSOP 16K ROM
ZGR323LSP4016G	40-pin PDIP 16K ROM
16 KB Extended Temperature: -40 °C to +105 °C	
Part Number	Description
ZGR323LEH4816G	48-pin SSOP 16K ROM
ZGR323LEP4016G	40-pin PDIP 16K ROM
16 KB Automotive Temperature: -40 °C to +125 °C	
Part Number	Description
ZGR323LAH4816G	48-pin SSOP 16K ROM
ZGR323LAP4016G	40-pin PDIP 16K ROM
8 KB Standard Temperature: 0 °C to +70 °C	
Part Number	Description
ZGR323LSH4808G	48-pin SSOP 8K ROM
ZGR323LSP4008G	40-pin PDIP 8K ROM
8 KB Extended Temperature: -40 °C to +105 °C	
Part Number	Description
ZGR323LEH4808G	48-pin SSOP 8K ROM
ZGR323LEP4008G	40-pin PDIP 8K ROM
8 KB Automotive Temperature: -40 °C to +125 °C	
Part Number	Description
ZGR323LAH4808G	48-pin SSOP 8K ROM
ZGR323LAP4008G	40-pin PDIP 8K ROM
4 KB Standard Temperature: 0 °C to +70 °C	
Part Number	Description
ZGR323LSH4804G	48-pin SSOP 4K ROM
ZGR323LSP4004G	40-pin PDIP 4K ROM
4 KB Extended Temperature: -40 °C to +105 °C	
Part Number	Description
ZGR323LEH4804G	48-pin SSOP 4K ROM
ZGR323LEP4004G	40-pin PDIP 4K ROM

4 KB Automotive Temperature: –40 °C to +125 °C	
Part Number	Description
ZGR323LAH4804G	48-pin SSOP 4K ROM
ZGR323LAP4004G	40-pin PDIP 4K ROM
Development Tools	
Part Number	Description
ZGP323ICE02ZEMG	ZGP323 In-Circuit Emulator
ZLP323ICE01ZACG*	40/48-Pins Accessory Kit
Note: *This kit has been replaced by an improved version, ZCRMZNICE02ZACG.	
ZCRMZNICE02ZACG	40/48-Pin Accessory Kit
ZGP32300200ZPRG (USB)	Programming system

- **Note:** Zilog Developer Studio II (ZDS II) Integrated Development Environment, ZDS II—Crimzon+GP, is also available.



Warning: DO NOT USE IN LIFE SUPPORT

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