E·XFL



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What is "Embedded - Microcontrollers"?

"Embedded - Microcontrollers" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

Applications of "<u>Embedded -</u> <u>Microcontrollers</u>"

Details

Product Status	Obsolete
Core Processor	eZ8
Core Size	8-Bit
Speed	20MHz
Connectivity	IrDA, UART/USART
Peripherals	Brown-out Detect/Reset, LED, LVD, POR, PWM, Temp Sensor, WDT
Number of I/O	17
Program Memory Size	2KB (2K x 8)
Program Memory Type	FLASH
EEPROM Size	64 x 8
RAM Size	512 x 8
Voltage - Supply (Vcc/Vdd)	2.7V ~ 3.6V
Data Converters	A/D 7x10b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 105°C (TA)
Mounting Type	Surface Mount
Package / Case	20-SOIC (0.295", 7.50mm Width)
Supplier Device Package	-
Purchase URL	https://www.e-xfl.com/product-detail/zilog/z8f022ash020ec

Email: info@E-XFL.COM

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Overview

Zilog's Z8 Encore![®] MCU family of products are the first in a line of Zilog[®] microcontroller products based upon the 8-bit eZ8 CPU. Zilog's Z8 Encore! XP[®] F082A Series products expand upon Zilog's extensive line of 8-bit microcontrollers. The Flash in-circuit programming capability allows for faster development time and program changes in the field. The new eZ8 CPU is upward compatible with existing Z8[®] instructions. The rich peripheral set of the Z8 Encore! XP F082A Series makes it suitable for a variety of applications including motor control, security systems, home appliances, personal electronic devices, and sensors.

Features

The key features of Z8 Encore! XP F082A Series products include:

- 20 MHz eZ8 CPU
- 1 KB, 2 KB, 4 KB, or 8 KB Flash memory with in-circuit programming capability
- 256 B, 512 B, or 1 KB register RAM
- Up to 128 B non-volatile data storage (NVDS)
- Internal precision oscillator trimmed to $\pm 1\%$ accuracy
- External crystal oscillator, operating up to 20 MHz
- Optional 8-channel, 10-bit analog-to-digital converter (ADC)
- Optional on-chip temperature sensor
- On-chip analog comparator
- Optional on-chip low-power operational amplifier (LPO)
- Full-duplex UART
- The UART baud rate generator (BRG) can be configured and used as a basic 16-bit timer
- Infrared Data Association (IrDA)-compliant infrared encoder/decoders, integrated with UART
- Two enhanced 16-bit timers with capture, compare, and PWM capability
- Watchdog Timer (WDT) with dedicated internal RC oscillator
- Up to 20 vectored interrupts
- 6 to 25 I/O pins depending upon package

Part Number	Flash	RAM	SDVN	I/O Lines	Interrupts	16-Bit Timers w/PWM	10-Bit A/D Channels	UART with IrDA	Comparator	Temperature Sensor	Description		
Z8 Encore! XP [®] F082A Series with 2 KB Flash, 10-Bit Analog-to-Digital Converter													
Standard Temperature: 0 °C to 70 °C													
Z8F022APB020SC	2 KB	512 B	64 B	6	14	2	4	1	1	1	PDIP 8-pin package		
Z8F022AQB020SC	2 KB	512 B	64 B	6	14	2	4	1	1	1	QFN 8-pin package		
Z8F022ASB020SC	2 KB	512 B	64 B	6	14	2	4	1	1	1	SOIC 8-pin package		
Z8F022ASH020SC	2 KB	512 B	64 B	17	20	2	7	1	1	1	SOIC 20-pin package		
Z8F022AHH020SC	2 KB	512 B	64 B	17	20	2	7	1	1	1	SSOP 20-pin package		
Z8F022APH020SC	2 KB	512 B	64 B	17	20	2	7	1	1	1	PDIP 20-pin package		
Z8F022ASJ020SC	2 KB	512 B	64 B	23	20	2	8	1	1	1	SOIC 28-pin package		
Z8F022AHJ020SC	2 KB	512 B	64 B	23	20	2	8	1	1	1	SSOP 28-pin package		
Z8F022APJ020SC	2 KB	512 B	64 B	23	20	2	8	1	1	1	PDIP 28-pin package		
Extended Temperature: -40 °C to 105 °C													
Z8F022APB020EC	2 KB	512 B	64 B	6	14	2	4	1	1	1	PDIP 8-pin package		
Z8F022AQB020EC	2 KB	512 B	64 B	6	14	2	4	1	1	1	QFN 8-pin package		
Z8F022ASB020EC	2 KB	512 B	64 B	6	14	2	4	1	1	1	SOIC 8-pin package		
Z8F022ASH020EC	2 KB	512 B	64 B	17	20	2	7	1	1	1	SOIC 20-pin package		
Z8F022AHH020EC	2 KB	512 B	64 B	17	20	2	7	1	1	1	SSOP 20-pin package		
Z8F022APH020EC	2 KB	512 B	64 B	17	20	2	7	1	1	1	PDIP 20-pin package		
Z8F022ASJ020EC	2 KB	512 B	64 B	23	20	2	8	1	1	1	SOIC 28-pin package		
Z8F022AHJ020EC	2 KB	512 B	64 B	23	20	2	8	1	1	1	SSOP 28-pin package		
Z8F022APJ020EC	2 KB	512 B	64 B	23	20	2	8	1	1	1	PDIP 28-pin package		
Replace C with G for Lead-Free Packaging													

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