Application Note

Z8 Encore! XP® Silicon: Versions Summary

AN028501-0708

Z8 Encore! XP® Flash Microcontrollers

Abstract

This Application Note describes features differences when migrating from Zilog's Z8 Encore! XP® F0822 Series Flash microcontroller unit (MCU) from the AA version to the BA version and of the Z8 Encore! XP F64XX Series Flash microcontrollers from the AA version to the BA version.

Product Overview

Zilog's Z8 Encore! XP F0822 Series devices are Flash MCU based on Zilog's eZ8 CPU. Z8 Encore! XP F0822 Series devices support up to 8 KB of Flash Program Memory and 1 KB register RAM. The F0822 Series devices feature up to five channels of 10-bit analog-to-digital conversion for measuring analog signals. These devices include two enhanced 16-bit timer blocks featuring PWMs and Capture and Compare.

Zilog's Z8 Encore! XP F64XX Series Flash MCU are based on Zilog's eZ8 CPU. The Z8 Encore! XP F64XX Series support up to 64 KB of Flash program memory and 4 KB register RAM. The Z8 Encore! XP F64XX Series feature up to twelve channels of 10-bit analog-to-digital conversion for measuring analog signals.These devices include up to four enhanced 16-bit timer blocks featuring PWMs and Capture and Compare.

Discussion

Table 1 lists the changes that occurred during the migration of the Z8 Encore! XP® F0822 Series Flash MCU from the AA version to the BA version and of the Z8 Encore! XP F64XX Series Flash microcontrollers from the AA version to the BA version.The date code described in the table and on each device identifies the version as AA or BA.

Table 1. Z8 Encore! XP® Silicon Versions

Z8 Encore! XP® Family	Item	Version	
		AA	BA
Z8 Encore! XP® F0822 Series	Date Code	Before 0402	0402 and Later
	WDT RC Oscillator	50 KHz	10 KHz
	RESET, DBG, SMR	Not Filtered	Filtered
	Flash	Page-Level Protection	Page- and Sector-Level Protection
	Reset and Stop Mode Latency	10.28 ms	6.6 ms
	Power	Moderate Power Consumption	Lower Power Consumption
	EMI	Moderate Emissions	Low Emissions
	VBO	VBO Enabled in STOP	Option to Disable VBO in STOP
	UART	No Address Matching	Address Matching for RS-485
	Timer	No Internal Cascading	Internal Cascading

Table 1. Z8 Encore! XP® Silicon Versions (Continued)

Z8 Encore! XP® Family	Item	Version	
		AA	BA
Z8 Encore! XP® F64XX Series	Date Code	Before 0344	0344 and after
	WDT RC Oscillator	50 KHz	10 KHz
	RESET, DBG, SMR	Not Filtered	Filtered
	Flash	Page-Level Protection	Page- and Sector-Level Protection
	Reset and Stop Mode Latency	10.28 ms	6.6 ms
	Power	Moderate Power Consumption	Lower Power Consumption
	EMI	Moderate Emissions	Low Emissions
	UART	No Address Matching No DE Signal	Address Matching for RS-485 Added DE Signal
	Timer	No Internal Cascading	Internal Cascading
	I^2C	Software can only set START, STOP, and NAK bits	Software can set and clear START, STOP, and NAK bits

References

The documents associated with Z8 Encore! XP® available on www.zilog.com are provided below:

- Errata for Z8 Encore! XP® F0822 Series Product Update (UP0058)
- Z8 Encore! XP® F0822 Series Product Specification (PS0225)
- Migrating from the Z8 Encore! XP F640X to the Z8 Encore! XP F64XX MCU Technical Note (TN0028)
- Errata for Z8 Encore! XP F64XX Series Product Update (UP0060)
- Z8 Encore! XP F64XX Series Product Specification (PS0199)

Part Numbers

Table 2 lists the part numbers for the Z8 Encore! XP® F0822 Series Flash microcontrollers.

Table 2. Z8 Encore! XP F0822 Series Devices

Z8F0822	Z8F0821	Z8F0812	Z8F0811
Z8F0422	Z8F0421	Z8F0412	Z8F0411

Table 3 lists the part numbers for the Z8 Encore! XP® F64XX Series Flash microcontrollers.

Table 3. Z8 Encore! XP F64XX Series Devices

Z8F6423	Z8F6422	Z8F6421
Z8F4823	Z8F4822	Z8F4821
	Z8F3222	Z8F3221
	Z8F2422	Z8F2421
	Z8F1622	Z8F1621

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