eZ80F91 ASSP: Date Codes later than 0929

There are no errata for eZ80F91 devices displaying a date code of 0929 or later than 0929.

eZ80F91 ASSP: Date Codes 0929 and prior

Table 1 lists, by part number, the eZ80Acclaim*Plus!* products, Zdots™ SBC, Ethernet Modules and development kits that are affected by the errata discussed in this document if the eZ80F91 device displays a date code of 0929 or prior date.

Table 1. Zilog Product Number Identification

eZ80F91AZA50SG	eZ80F91AZA50EG	eZ80F91NAA50SG	eZ80F91NAA50EG
eZ80F917050SBCG	eZ80F916050MODG	eZ80F916005MODG	
eZ80F910300ZCOG	eZ80F910200KITG		

Note: Includes both the LQFP and BGA packages.

The errata listed in Table 2 are found in the eZ80F91 ASSP and apply to all date codes. When reviewing the following errata, it is recommended that you download the most recent version of the *eZ80F91 ASSP Product Specification (PS0270)* from www.zilog.com.

Table 2. Errata for Z80AcclaimPlus! Connectivity ASSP eZ80F91 ASSP with All Date Codes

No.	Summary	Detailed Description

1	RTC V_{DD} exceeds 10 μA, which is the maximum spec	The real-time clock (RTC) V_{DD} current exceeds the maximum specification of 10 μA when the device's V_{DD} is grounded or floating. The RTC leakage current can range from 300 to 700 μA depending on the application. It might cause fast RTC backup battery discharge and RTC failure if used after the system has been powered off.
		
		The RTC leakage current issue also affects the Zdots SBC for eZ80Acclaim*Plus!* and the eZ80F91 Ehternet Module, which might come with a RTC backup battery. The battery can be discharged during storage or transportation.
		
		Workarounds
		
		Use TimeP Protocol
		If the higher current drain on the RTC V_{DD} causes the RTC to lose time due to the battery becoming discharged, then there is a workaround for applications that have access to a server. The Zilog TCP/IP Stack supports a TimeP protocol function called `time_rqest( )` that sends out a time request to a time server. When the time request is received from the server, the time is updated to the RTC. The time server needs to be RFC 738 compliant. Refer to the *Zilog TCP/IP Stack API Reference Manual* (RM0040) for more details. See below. So, after any power-up reset, `time_rqest( )` can be used to restore the RTC to the current time.
		
		TimeP Protocol Function
		Zilog TCP/IP Stack supports one TimeP protocol function `time_rqest`.
		
		time_rqest
		Include
		`#include "date.h"`
		
		Prototype
		`INT16 time_rqest(void);`
		
		Description
		The `time_rqest( )` function sends out a time request to the time server, the IP address of which is specified in the `struct commonServers csTbl[ ]`, which is present in the `ZTPConfig.c` file. When the time request is received from the server, the time is updated to the RTC. If the time server is not present or did not reply to the request, then the RTC is not updated. The time server needs to be RFC 738 compliant.
		
		Argument(s)
		None.
		
		Return Value(s)
		If successful, the `time_rqest` function returns OK. If this function fails, it returns either TIMEOUT or SYSERR.

⚠️ **Warning:**   DO NOT USE IN LIFE SUPPORT

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