Hercules™ F021
Flash API

Errata

Literature Number: SPNZ210
July 2013

Contents

List of Tables

Hercules™ F021 Flash API

This document describes the known exceptions to the functional specifications for the software.

1 All Errata Listed With Software Version Numbers

Table 1. Overview

Advisory ID	v01.50.00	v01.51.00	v02.00.00	v02.00.01
SDOCM00086402	X	-	-	-
SDOCM00086405	X	-	NA	NA
SDOCM00094147	X	X	-	-
SDOCM00102084	NA	NA	X	-
SDOCM00102399	-	-	X	-

LEGEND: X = Advisory applies to this version, NA = Not Applicable to this version of the library, - = Advisory does not affect this version

2 Revision History

This software errata revision history highlights the technical changes made from the previous to the current revision.

Table 2. Revision History

Advisory Changes in Advisory List	Advisory ID
Added advisory(s)	SDOCM00086402, SDOCM00086405, SDOCM00094147, SDOCM00102084, SDOCM00102399
Removed advisory(s)	None
Modified advisory(s)	None
Other	None

3 Known Design Exceptions to Function Specifications

Table 3. Known Design Exceptions to Function Specifications

Title **Page**

SDOCM00086402 *Fapi_doMarginRead() does not read all requested data*

Severity	S2 - Major
Expected Behavior	To read all data for the given range.
Issue	The function Fapi_doMarginRead() only returns 3/4 of the data requested on ECC regions.
Conditions	Using this function on ECC region will exhibit this behavior.
Implications	Wrong data or invalid reads may occur.
Workaround(s)	None

SDOCM00086405 *Fapi_UserDefinedFunctions.c needs FSM unlock/lock sequence for FSM_SECTOR/1/2 writes*

Severity S3 - Minor

Expected Behavior Set sectors enabled for programming and erasing.

Issue The example versions of the user defined functions Fapi_setupEepromSectorEnable() and Fapi_setupBankSectorEnable() does not show unlock the registers FSM_SECTOR/1/2.

Conditions When trying to do an erase a bank after it has already been erased once after power on reset.

Implications The bank will not erase.

Workaround(s) As this is intended for the customer to modify, the unlock code can be added by them.

```
Fapi_GlobalInit.m_poFlashControlRegisters-
>FsmWrEna.FSM_WR_ENA_BITS.WR_ENA    = 0x5U;  /* Unlock the regtisters */

Fapi_GlobalInit.m_poFlashControlRegisters-
>FsmWrEna.FSM_WR_ENA_BITS.WR_ENA    = 0x2U; /* Lock the registers */
```

SDOCM00094147 *Incorrect read in Verify functions in ECC regions on LE devices*

Severity	S2 - Major
Expected Behavior	Verification will work on ECC regions on Little Endian devices.
Issue	The read functions, Fapi_doVerify(), Fapi_doPsaVerify(), and Fapi_calculatePsa() will fail on Little Endian devices in the ECC regions do to a byte swap issue.
Conditions	When trying to use the functions Fapi_doVerify(), Fapi_doPsaVerify(), and Fapi_calculatePsa() on ECC regions on Little Endian devices.
Implications	This will cause false failures for Fapi_doVerify() and Fapi_doPsaVerify() and cause incorrect return value for Fapi_calculatePsa() on ECC regions on Little Endian devices.
Workaround(s)	For the function Fapi_doVerify(), use the byte variant Fapi_doVerifyByByte(). For the functions Fapi_doPsaVerify() and Fapi_calculatePsa(), none.

SDOCM00102084 *Typo in CGT.CCS.H in GNU attribute check*

Severity S3 - Minor

Expected Behavior if --gcc option is enabled, ATTRIBUTE_PACKED will be defined.

Issue In this code segment in CGT.CCS.h, __TI_GNU_ATTRIBUTE_SUPPORT__ is missing the R:

```
#if defined(__TI_GNU_ATTIBUTE_SUPPORT__)
/* --gcc option enabled so we can specify this */
#define ATTRIBUTE_PACKED    __attribute__((packed))
#else
```

Conditions On CCS compilers, ATTRIBUTE_PACKED will always be an empty definition.

Implications On builds expecting --gcc option to use attributes defined in code, enums will not be packed if the compile option to pack enums is not explicitly set.

Workaround(s) Add the R to __TI_GNU_ATTIBUTE_SUPPORT__.

SDOCM00102399 *FEDACSDIS and FEDACSDIS2 are missing from Fapi_FmcRegistersType definition*

Severity	S3 - Minor
Expected Behavior	It is expected theat Fapi_FmcRegistersType contains all registers defined in the devices TRM and SPNA148/
Issue	In the register update for v2.00.00, these registers were unintentionally removed.
Conditions	The registers do not exist in the Fapi_FmcRegistersType.
Implications	User cannot reference the FEDACSDIS and FEDACSDIS2 registers through the API reference.
Workaround(s)	Directly address the registers.

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