

MC-ISAR_AS42x_TC3xx_1.30.0_Patch_3

Release Notes

Product name: MC-ISAR_AS422_TC3xx

Release number: 1.30.0_PATCH_3

Type of release: PATCH*

Release method: via Release Area

AUTOSAR specification: 4.2.2

Compiler support: Tasking 6.2r2p2

Processor platform: TC39xBC, TC38xAD, TC37xAA, TC37xEXT AB, TC35xAB

Date: 2020-03-20

Patch Applicability: 1.30.0

* This patch has passed delta testing, but has not been subject to the full validation process for a production release. Customers must perform their own integration testing.

1. Scope and purpose

This patch is to provide the fix for following issues:

Issue Id	0000053912-10661
Title	FEE internal variable not reset during cancel operation.

Issue Id	0000053912-10922
Title	Issues in word-line failure handling algorithm in certain scenario.

Issue Id	0000053912-10903
Title	Handling of Program verify error flag during QS hardening.

Issue Id	0000053912-10899
Title	Mishandling of the un-configured blocks during word-line failure scenario.

Issue Id	0000053912-10284
Title	Issue while performing Hardening check in certain scenario.

The patch is applicable to following package

Date of Release	Package
2019-10-24	MC-ISAR_AS42x_TC3xx_BASIC_1.30.0

2. Details of Issues Fixed

Issue Id	0000053912-10661
Title	FEE internal variable not reset during cancel operation.
Description	When user write request is cancelled by Fee_Cancel API, followed by user read request(s) and then by user write request, the data flash content may be corrupted.
Impact	In the scenario mentioned in the description, the data flash content may be corrupted leading to data loss of user blocks.
Solution	Length variable used in write operation is reset to default whenever the user write request is accepted.

Issue Id	0000053912-10922
Title	Issues in word-line failure handling algorithm in certain scenario.
Description	Possibilities of Data blocks corruption leading to trap under certain scenarios while handling word-line failures during write operation.
Impact	Data flash content may be corrupted leading to data loss of user blocks and may result in a trap.
Solution	The last written block information is correctly updated in the case of word-line failure when the last written block is spanning across the word-line.

Issue Id	0000053912-10903
Title	Handling of Program verify error flag during QS hardening.
Description	Occurrence of Program verify error during QS hardening results in a word-line skip for the write operation of the block, which triggered GC.
Impact	Unintended word-line skips resulting in unusable word-lines until next GC happens.
Solution	Program verify error flag detected during QS hardening is cleared after completing QS hardening.

Issue Id	0000053912-10899
Title	Mishandling of the un-configured blocks during word-line failure scenario.
Description	Un-configured blocks management while handling word-line failures during write operation may result in out of bound array access.
Impact	During the mentioned scenario, if out of bound array happens to be in a reserved memory area, it results in a trap.
Solution	Implementation error while traversing through the un-configured blocks is corrected.

Issue Id	0000053912-10284
Title	Issue while performing Hardening check in certain scenario.
Description	Hardening check not performed for all pages in the word-line, which may have to be hardened.
Impact	This may result in not performing the hardening operation for a page where hardening is actually required and thereby leading to data loss in the corresponding word-line.
Solution	Implementation error while scanning through the pages during Hardening check is corrected.

3. Contents of 1.30.0_PATCH_3

Following items are supplied as part of 1.30.0_PATCH 3 (MC-ISAR_AS42x_TC3xx_1.30.0_Patch_3.zip)

1. Releasenote_MC-ISAR_AS42x_TC3xx_1.30.0_PATCH_3.pdf
2. Folder MC-ISAR_AS42x_TC3xx_1.30.0_Patch_3\patched_files contains

Module	File	Purpose
Fee	Fee.c	NVM corruption issue fix and SW patch version is updated to 10.30.21
	plugin.xml	SW patch version is updated to 10.30.21
	Fee.bmd (for all supported processor platform)	SW patch version is updated to 10.30.21
	Fee.xdm	SW patch version is updated to 10.30.21
	Fee_Bswmd.arxml	SW patch version is updated to 10.30.21
	CRYPTOMANIFEST.MF	Crypto Signature files for plugins
	CRYPTOMANIFESTSIG.MF	

4. Steps to use 1.30.0_PATCH_3

1. Ensure that MC-ISAR_AS42x_TC3xx_BASIC_1.30.0 BASE package is installed.
2. Extract MC-ISAR_AS42x_TC3xx_1.30.0_Patch_3.zip
3. Replace files present in BASE packages from the files present under MC-ISAR_AS42x_TC3xx_1.30.0_PATCH_3\patched_files.
Please see following example for replacing files:

```
xcopy /F /E /Y <PATCH_EXTRACTED_PATH>\patched_files <BASE_PACKAGE_INSTALLED_PATH>\MC-ISAR_AS42x_TC3xx_BASIC_1.30.0\
```

4. Clean and build the release package. (Refer TC3xx_SW_MCAL_UM_Basic.pdf for details)

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