



Arm® CoreLink™ NI-710AE Network-on-Chip Interconnect

Software Developer Errata Notice

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Non-Confidential

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This document contains all known errata since the r0p1 release of the product.



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Contents

Introduction	5
Scope	5
Categorization of errata	5
Change Control	6
Errata summary table	7
Errata descriptions	8
Category A	8
Category A (rare)	8
Category B	8
Category B (rare)	8
Category C	9
2982194 Overflow reported for single destination ID checker error events on GT and AUB	9

Introduction

Scope

This document describes errata categorized by level of severity. Each description includes:

- The current status of the erratum.
- Where the implementation deviates from the specification and the conditions required for erroneous behavior to occur.
- The implications of the erratum with respect to typical applications.
- The application and limitations of a workaround where possible.

Categorization of errata

Errata are split into three levels of severity and further qualified as common or rare:

Category A	A critical error. No workaround is available or workarounds are impactful. The error is likely to be common for many systems and applications.
Category A (Rare)	A critical error. No workaround is available or workarounds are impactful. The error is likely to be rare for most systems and applications. Rare is determined by analysis, verification and usage.
Category B	A significant error or a critical error with an acceptable workaround. The error is likely to be common for many systems and applications.
Category B (Rare)	A significant error or a critical error with an acceptable workaround. The error is likely to be rare for most systems and applications. Rare is determined by analysis, verification and usage.
Category C	A minor error.

Change Control

Errata are listed in this section if they are new to the document, or marked as "updated" if there has been any change to the erratum text. Fixed errata are not shown as updated unless the erratum text has changed. The [errata summary table](#) identifies errata that have been fixed in each product revision.

30-Jun-2023: Changes in document version v2.0

ID	Status	Area	Category	Summary
2982194	New	Programmer	Category C	Overflow reported for single destination ID checker error events on GT and AUB

24-Feb-2023: Changes in document version v1.0

No errata in this document version.

Errata summary table

The errata associated with this product affect the product versions described in the following table.

ID	Area	Category	Summary	Found in versions	Fixed in version
2982194	Programmer	Category C	Overflow reported for single destination ID checker error events on GT and AUB	r0p1	Open

Errata descriptions

Category A

There are no errata in this category.

Category A (rare)

There are no errata in this category.

Category B

There are no errata in this category.

Category B (rare)

There are no errata in this category.

Category C

2982194

Overflow reported for single destination ID checker error events on GT and AUB

Status

Affects: PL627

Fault Type: CAT C - Programmer

Fault Status: Present in: r0p1. Fixed in: Open

Description

A single DESTID error in a NI-710AE configuration may be reported for multiple cycles, causing a false error overflow indication in the FMU (Fault Management Unit). This may occur on the GT and AUB networks (SM 15 and 16).

Configurations Affected

This issue happens in configurations where all the following conditions are true:

- NI-710AE has DESTID checking enabled though internal network protection.

Conditions

The following conditions are required to hit this issue:

- A GT/AUB packet is sent to an endpoint with a corrupted TGTID
- A GT/AUB packet is incorrectly routed to the wrong endpoint

Implications

When a DESTID error is encountered, the error may be reported for several cycles and cause an overflow to be falsely indicated in the FMU_ERR_STATUS.OF field.

Error handling software may use the OF indicator to count the number of errors to distinguish between transient faults and permanent faults. The action taken for a transient fault may be to reset the device, whereas the action taken for a permanent fault may be to disable the device.

Workaround

The error overflow field may be incorrect when a DESTID (SM 15 and 16) error is encountered. The overflow field is accurate as long as there is not a destination ID error present. For SM 15 and 16, FuSa software should ignore the OF bit, and instead use a software counter to determine the frequency and severity of events.