

Introduction [\(Ask a Question\)](#)

The Radiation-Tolerant (RT) PolarFire® FPGA and SoC FPGA devices are subjected to the limitations described in this errata document. This document contains updated information about known device-specific issues and workarounds. This errata applies to part number prefixes RTPF500T, RTPF500ZT, RTPFS460ZT and RTPFS160ZT. For more information, contact [Microchip Technical Support](#).

Refer to the following resources for device offering, device specifications, and a summary of enhancements in the RT devices:

Product Overviews

- [Radiation-Tolerant PolarFire® FPGA Product Overview](#)
- [Radiation-Tolerant PolarFire® SoC Product Overview](#)

Device Datasheets

- [RT PolarFire® FPGA Datasheet](#)

Application Notes

- [RT PolarFire® Device Family Enhancements Compared to PolarFire Devices](#)

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1. Errata Descriptions and Workarounds [\(Ask a Question\)](#)

The following section describes the device errata and the workarounds. The following table lists the errata for Engineering Samples (ES, MS) and production silicon.

Table 1-1. Summary of RT PolarFire® FPGA and SoC FPGA Errata

Errata Description	Silicon Revisions		
	ES	MS	Production
External VERIFY_DIGEST with POR Digest Check for Fabric Components	*	*	*

Notes:

- * indicates that the errata exists for the specified silicon revision.
- X indicates that the issue is fixed in the specified silicon revision.

Refer to the following documents for descriptions of ES and MS devices:

- [RT PolarFire® RTPF500T MS Description](#)
- [RT PolarFire® RTPF500ZT MS Description](#)
- [RT PolarFire® SoC MS Description](#)

2. **Deprecated Feature: Use of External VERIFY_DIGEST with POR Digest Check for Fabric Components** [\(Ask a Question\)](#)

When the device is configured for Fabric Power-On-Reset (POR) digest check, VERIFY_DIGEST of fabric components via JTAG/SPI may report false failures and is deprecated. This issue does not affect:

- VERIFY_DIGEST of non-fabric components
- CHECK_DIGEST via system service call
- VERIFY_DIGEST functionality for fabric components when Fabric POR digest check is disabled

For more information, refer to the latest revision of the [PolarFire Family Security User Guide](#).

Note that the on-demand digest check service of fabric content is not supported after exiting System Controller Suspend Mode (SCSM) during normal operation, for those devices that support SCSM exit to perform system services (namely RTPF500ZT, RTPFS460ZT, and RTPFS160ZT), because it prevents re-entry into SCSM until the device is power-cycled or DEVRST_N is toggled. Therefore, after a POR digest failure, if further insight into which component digest check failed is desired, a subsequent digest check system service can be performed on all other component digests, aside from the fabric digest.

3. **Libero[®] SoC Software Errata** [\(Ask a Question\)](#)

For Libero SoC related issues and limitations, see [Libero[®] SoC Release Notes](#).

4. **Revision History** [\(Ask a Question\)](#)

The revision history describes the changes that were implemented in the document. The changes are listed by revision, starting with the most current publication.

Revision	Date	Description
A	09/2025	Initial Revision

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