



Customer Information Notification **Update**

202406024IU01 : FS23 HVBUCK Overshoot During Power Up Fixed by Design Change

Note: This notice is NXP Company Proprietary.

Issue Date: Oct 17, 2024 **Effective Date:** Oct 18, 2024

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Management summary

NXP Semiconductors announces a Design enhancement for the FS23 Family of Safety System Basis Chip devices associated with this notification. This updated notification presents the qualification results and the clean date code for production start.

Change Category

<input type="checkbox"/> Wafer Fab Process	<input type="checkbox"/> Assembly Process	<input type="checkbox"/> Product Marking	<input type="checkbox"/> Test Process	<input checked="" type="checkbox"/> Design
<input type="checkbox"/> Wafer Fab Materials	<input type="checkbox"/> Assembly Materials	<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Equipment	<input type="checkbox"/> Errata
<input type="checkbox"/> Wafer Fab Location	<input type="checkbox"/> Assembly Location	<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Location	<input type="checkbox"/> Electrical spec./Test coverage
<input type="checkbox"/> Firmware	<input type="checkbox"/> Other			

Notification Overview

Update Information

This updated notification 202406024IU01 presents the qualification results of the design enhancement to fix the possible HVBUCK overshoot during power up, and provides the clean date code for production start of the FS23 Family of Safety System Basis Chip products.

Description

On June 27th, 2024, NXP Semiconductors pre-announced with the CIN 202406024I an up-coming Design enhancement for the FS23 Family of Safety System Basis Chip devices associated with this notification. The objective of this minor design change is to prevent the potential risk of HVBUCK overshoot during power up.

This updated notification 202406024IU01 announces the release in production of the Design enhancement. This document also presents the qualification result with the clean date code for production start.

This design change (revision B2) has been successfully qualified and launched in production. This minor design change has no effect on the specified electrical behavior, so the existing data sheet remains valid. There is no impact on the customer's application, hardware or software between

previous silicon revision and new silicon revision. There is no change to orderable part numbers.

Details about the design enhancement and the qualification results can be found in the document attached to this Customer Information Notification.

Corresponding ZVEI Delta Qualification Matrix ID: SEM-DE-02.

Reason

NXP announces the release in production of the design enhancement to fix the possible HVBUCK overshoot during device power up. It could occur under specific conditions, only when VSUP drops below V1 configured output voltage before soft start completion.

Identification of Affected Products

Product identification does not change / No change to orderable part numbers.

Clean date code: 2535 (WW35 2025). The parts with design change (revision B2) will be progressively available, with a full capacity delivery expected in WW35 2025.

Anticipated Impact on Form, Fit, Function, Reliability or Quality

No Impact on form, fit, function, or reliability. Quality is improved by this change.

Data Sheet Revision

No impact to existing data sheet

Additional information

Additional documents: [view online](#)

Related Notification

Notification	Issue Date	Effective Date	Title
2024060241	Jun 27, 2024	Jun 28, 2024	FS23 HVBUCK Overshoot During Power Up

Contact and Support

For all inquiries regarding the ePCN tool application or access issues, please contact NXP "Global Quality Support Team".

For all Quality Notification content inquiries, please contact your local NXP Sales Support team.

For specific questions on this notice or the products affected please contact our specialist directly:

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NXP Quality Management Team.

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12NC	Orderable Part Number	Product Type	Product Description	Package Outline	Package Description	Product Status	Customer Specific Indicator	Product Line
935457556557	MFS2323BMBA5EP	MFS2323BMBA5EP	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935457556528	MFS2323BMBA5EPR2	MFS2323BMBA5EPR2	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935453654557	MFS2320BMBA0EP	MFS2320BMBA0EP	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935453654528	MFS2320BMBA0EPR2	MFS2320BMBA0EPR2	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935453656557	MFS2320BMBB1EP	MFS2320BMBB1EP	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935453656528	MFS2320BMBB1EPR2	MFS2320BMBB1EPR2	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935463557557	MFS2323BMBBFEP	MFS2323BMBBFEP	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935463557528	MFS2323BMBBFEPR2	MFS2323BMBBFEPR2	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935460941557	MFS2323BMBA1EP	MFS2323BMBA1EP	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935460941528	MFS2323BMBA1EPR2	MFS2323BMBA1EPR2	FS23 DCDC	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935459495557	MFS2321BMBB2EP	MFS2321BMBB2EP	FS2300	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4
935459495528	MFS2321BMBB2EPR2	MFS2321BMBB2EPR2	FS2300	H(V)QFN48WF	SOT619-27(D)	RFS	No	BLC4