

Microsemi Corporation

January 17, 2020

Customer Notification No: CN19027

Subject: Power Supply Tolerances and Powering Transceivers

CN19027.1 Clarified Power Supply Tolerance Specification

Description of Change

The power supply tolerance specification in the recommended operating conditions now includes both DC-offset and ripple components.

Reason for Change

The specification for the recommended operating conditions needed clarification in the PolarFire Datasheet Revision 1.7.

Application Impact

None.

Action Required

Check the board design to ensure that DC-offset plus ripple meet the datasheet-recommended voltage tolerances.

Products Affected

See Appendix A.

CN19027.2 Powering $V_{DD_XCVR_CLK}$ when Powering V_{DDA}

Description of the Change

Both V_{DDA} and $V_{DD_XCVR_CLK}$ supplies must be powered when any transceiver is used. $V_{DD_XCVR_CLK}$ must power on within the I/O calibration time (as specified for the device in Libero). V_{DDA} and $V_{DD_XCVR_CLK}$ must both then remain powered during operation. If V_{DDA} needs to be powered down, $V_{DD_XCVR_CLK}$ must also be powered down. There is no required sequence for powering up or down V_{DDA} and $V_{DD_XCVR_CLK}$. PolarFire Datasheet Revision 1.7 has the new specification.

Reason for Change

If $V_{DD_XCVR_CLK}$ is not powered when V_{DDA} is, then excessive current may be observed on the V_{DDA} power domain.

Application Impact

None.

Action Required

Check the board design to ensure that the requirement is met.

Products Affected

See Appendix A.

Appendix A

MPF300XT-1FCG484I		
MPF100T-FCG484E	MPF100TL-FCG484E	MPF100T-1FCG484E
MPF100T-FCVG484E	MPF100TL-FCVG484E	MPF100T-1FCVG484E
MPF100T-FCSG325E	MPF100TL-FCSG325E	MPF100T-1FCSG325E
MPF200T-FCG484E	MPF200TL-FCG484E	MPF200T-1FCG484E
MPF200T-FCVG484E	MPF200TL-FCVG484E	MPF200T-1FCVG484E
MPF200T-FCG784E	MPF200TL-FCG784E	MPF200T-1FCG784E
MPF200T-FCSG325E	MPF200TL-FCSG325E	MPF200T-1FCSG325E
MPF200T-FCSG536E	MPF200TL-FCSG536E	MPF200T-1FCSG536E
MPF300T-FCG484E	MPF300TL-FCG484E	MPF300T-1FCG484E
MPF300T-FCVG484E	MPF300TL-FCVG484E	MPF300T-1FCVG484E
MPF300T-FCG784E	MPF300TL-FCG784E	MPF300T-1FCG784E
MPF300T-FCSG536E	MPF300TL-FCSG536E	MPF300T-1FCSG536E
MPF300T-FCG1152E	MPF300TL-FCG1152E	MPF300T-1FCG1152E
MPF500T-FCG784E	MPF500TL-FCG784E	MPF500T-1FCG784E
MPF500T-FCG1152E	MPF500TL-FCG1152E	MPF500T-1FCG1152E
MPF100T-FCG484I	MPF100TL-FCG484I	MPF100T-1FCG484I
MPF100T-FCVG484I	MPF100TL-FCVG484I	MPF100T-1FCVG484I
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MPF300T-FCG1152I	MPF300TL-FCG1152I	MPF300T-1FCG1152I
MPF500T-FCG784I	MPF500TL-FCG784I	MPF500T-1FCG784I
MPF500T-FCG1152I	MPF500TL-FCG1152I	MPF500T-1FCG1152I
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MPF500TLS-FCG784I	MPF500TS-FCG784I	MPF500TS-1FCG784I
MPF500TLS-FCG1152I	MPF500TS-FCG1152I	MPF500TS-1FCG1152I

Contact Information

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Regards,

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