

# Microsemi Corporation

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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
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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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