

# Microsemi Corporation

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December 18, 2019

Customer Notification No: CN19028

**Subject: PolarFire FPGA CCC PLL Feedback Issue**

## Description of Change

The PLL within the PolarFire Clock Conditioning Circuitry (PF\_CCC) includes soft FPGA logic for implementing External or Post-Divider feedback control for designs requiring clock adjustment to compensate for skew. Implementations of the PF\_CCC core generated by Libero SoC have shown unpredictable behavior between device startups that manifested as the PLL not locking.

## Reason for Change

A new PF\_CCC IP core has been released to the Libero SoC 12.3 catalog that corrects a metastability issue in the soft logic used for implementing PLL feedback.

## Application Impact

In projects using Libero SoC v12.2 or earlier, these designs can experience failing conditions mentioned above.

## Action Required

Download the following PF\_CCC core from the IP catalog and regenerate the design with the updated core.

- Refer to Libero SoC release notes for latest version of IP core.

## Products Affected

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
MPF100T-FCSG325I	MPF100TL-FCSG325I	MPF100T-1FCSG325I
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MPF300TSL-FCG784I	MPF300TS-FCG784I	MPF300TS-1FCG784I
MPF300TSL-FCSG536I	MPF300TS-FCSG536I	MPF300TS-1FCSG536I

MPF300TLS-FCG1152I	MPF300TS-FCG1152I	MPF300TS-1FCG1152I
MPF500TLS-FCG784I	MPF500TS-FCG784I	MPF500TS-1FCG784I
MPF500TLS-FCG1152I	MPF500TS-FCG1152I	MPF500TS-1FCG1152I

**Note:** All MPF300-XT devices do not support external feedback modes and are not impacted by this notification.

**Contact Information**

If you have any questions about this subject, contact Microsemi Technical Support department by using the support portal at <https://soc.microsemi.com/Portal/Default.aspx>.

**Regards,**

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