



Customer Information Notification

2021030271 : MPC5777C Data Sheet Updates To Rev15

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Issue Date: May 08, 2021 **Effective date:** May 09, 2021

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PCN Overview Description

NXP Semiconductors announces data sheet update for the MPC5777C from Rev14 to Rev15. The revision history included in the updated document provides a details description of the changes.

Data sheet changes:

1. Page 75-76: Added DSPI CMOS Slave Mode Timing specifications.
2. Page 10: In Table 3: Changed the Max frequency of fSYS, fPLATF and fPER. Updated the footnotes of fSYS, fPLATF and fETPU.
3. Page 20: In Table 12: Updated footnote of fPLL0PHI Max frequency.
4. Page 21: In Table 13: Updated footnote of fPLL1PHI Max frequency.
5. Page 50: In Table 34: Changed $100 \text{ MHz} < f\text{PLATF} \leq 150 \text{ MHz}$ to $100 \text{ MHz} < f\text{PLATF} \leq 153 \text{ MHz}$.
6. Page 86: In Figure 49: Changed the Operating frequency from $4 = 2 \times 300 \text{ MHz}$ to $4 = 2 \times 306 \text{ MHz}$.
7. Page 31-32: In Table 18:
 - Changed the condition of δGROUP from "Within pass band – Tclk is $f\text{ADCD_M}/2$ " to "Within pass band – Tclk is $2/f\text{ADCD_M}$ ".
 - In the footnote of tLATENCY changed the Register Latency formula from "where fADCD_S is the after-decimation ADC output data rate, fADCD_M is the modulator sampling rate and fFM_PER_CLK is the frequency of the peripheral bridge clock feeds to the ADC S/D module. REGISTER LATENCY = $t\text{LATENCY} + 0.5/f\text{ADCD_S} + 2(\sim+1)/f\text{ADCD_M} + 2(\sim+1)f\text{FM_PER_CLK}$ " to "where fADCD_S is the after-decimation ADC output data rate, $f\text{ADCD_M}/2$ is the modulator

sampling rate and fFM_PER_CLK is the frequency of the peripheral bridge clock feeds to the ADC S/D module. REGISTER LATENCY = tLATENCY + 0.5/fADCD_S + 2 (~+1)/fADCD_M + 2(~+1)/fFM_PER_CLK".

The MPC5775C data sheet Rev15 is attached to this notice and can be found at:
https://www.nxp.com/products/processors-and-microcontrollers/power-architecture-processors/mpc5xxx-55xx-32-bit-mcus/ultra-reliable-mpc57xx-32-bit-automotive-and-industrial-microcontrollers-mcus/ultra-reliable-mpc5777c-mcu-for-automotive-industrial-engine-management:MPC5777C?tab=Documentation_Tab

Corresponding ZVEI Delta Qualification Matrix ID: SEM-DS-01 & SEM-DS-02.

Reason

The data sheet has been updated to provide additional technical clarification.

Identification of Affected Products

Product identification does not change

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

No Impact on form, fit, function, reliability or quality

Data Sheet Revision

A new datasheet will be issued

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Changed Orderable Part#	12NC	Product Type	Product Description	Package Outline	Package Description	Product Status	Customer Specific Indicator	Product Line
SPC5777CAK3MME3	935350944557	SPC5777CAK3MME3	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CAK3MME3R	935350944518	SPC5777CAK3MME3R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CAK3MMO3	935350946557	SPC5777CAK3MMO3	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CAK3MMO3R	935350946518	SPC5777CAK3MMO3R	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CCK3MME3	935315842557	SPC5777CCK3MME3	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CCK3MME3R	935315842518	SPC5777CCK3MME3R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CCK3MMO3	935324923557	SPC5777CCK3MMO3	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CCK3MMO3R	935324923518	SPC5777CCK3MMO3R	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CDK3MME3	935350948557	SPC5777CDK3MME3	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CDK3MME3R	935350948518	SPC5777CDK3MME3R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CDK3MME4	935368231557	SPC5777CDK3MME4	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CDK3MME4R	935368231518	SPC5777CDK3MME4R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CDK3MMO3	935350951557	SPC5777CDK3MMO3	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CDK3MMO3R	935350951518	SPC5777CDK3MMO3R	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CDK3MMO4	935368233557	SPC5777CDK3MMO4	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CDK3MMO4R	935368233518	SPC5777CDK3MMO4R	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CK2MME3	935318579557	SPC5777CK2MME3	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	DOD	No	BLAD
SPC5777CK2MME3R	935318579518	SPC5777CK2MME3R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	DOD	No	BLAD
SPC5777CK2MMO3	935315708557	SPC5777CK2MMO3	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	DOD	No	BLAD
SPC5777CK2MMO3R	935315708518	SPC5777CK2MMO3R	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	DOD	No	BLAD
SPC5777CK3MME3	935320923557	SPC5777CK3MME3	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CK3MME3R	935320923518	SPC5777CK3MME3R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CK3MMO3	935318909557	SPC5777CK3MMO3	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CK3MMO3R	935318909518	SPC5777CK3MMO3R	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CLK3MME3	935336417557	SPC5777CLK3MME3	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CLK3MME3R	935336417518	SPC5777CLK3MME3R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CLK3MMO3	935336418557	SPC5777CLK3MMO3	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CLK3MMO3R	935336418518	SPC5777CLK3MMO3R	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CRK3MME3	935337617557	SPC5777CRK3MME3	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CRK3MMO3	935337618557	SPC5777CRK3MMO3	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	RFS	No	BLAD
SPC5777CSK3MME3	935318904557	SPC5777CSK3MME3	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CSK3MME3R	935318904518	SPC5777CSK3MME3R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CSK3MME4	935402963557	SPC5777CSK3MME4	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CSK3MME4R	935402963518	SPC5777CSK3MME4R	Power Arch cores, 8MB FI	BGA416M	SOT1528-1	RFS	No	BLAD
SPC5777CSK3MMO3	935318913557	SPC5777CSK3MMO3	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	ASM	No	BLAD
SPC5777CSK3MMO3R	935318913518	SPC5777CSK3MMO3R	Power Arch cores, 8MB FI	BGA516M	SOT1527-1	ASM	No	BLAD