

PCN Number:	20170321000	PCN Date:	March 28, 2017
Title:	Datasheets for MSP430FR*		
Customer Contact:	PCN Manager	Dept:	Quality Services
Change Type:			
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design
<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Data Sheet
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Materials
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process

Notification Details

Description of Change:

Texas Instruments Incorporated is announcing an information only notification. The product datasheet(s) is being updated as summarized below. The following change history provides further details.



**MSP430FR6979, MSP430FR69791, MSP430FR6977
MSP430FR6928, MSP430FR6927, MSP430FR69271**

SLAS797B – AUGUST 2014 – REVISED MARCH 2017

Changes from March 10, 2015 to March 9, 2017

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• Removed "at Rates up to 10 Mbps" from SPI features list item	1
• Added Section 3.1, Related Products	8
• Added ACLK as additional multiplexed signal on P7.1 in the PZ package pinout	9
• Added ACLK as additional multiplexed signal on P7.1 in the PN package pinout	10
• Added ACLK as additional multiplexed signal on P7.1 in the PM or RGC package pinout	11
• Added note that starts "TI recommends connecting..."	11
• Removed "(divided by 1, 2, 4, or 8)" from ACLK description on P5.2	14
• Removed "(divided by 1, 2, 4, or 8)" from ACLK description on PJ.2	14
• Added ACLK as additional multiplexed signal on P7.1	17
• Removed "(divided by 1, 2, 4, or 8)" from ACLK description on P4.1	20
• Removed "(divided by 1, 2, 4, or 8)" from ACLK description on PJ.2	23
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• Added row for QFN thermal pad	26
• Updated the requirements for the capacitor on the RST/NMI pin in Table 4-3, Connection of Unused Pins	27
• Added axis labels to Figure 5-4, LPM3.5 Supply Current vs Temperature (LPM3.5, XT3.7)	35
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• Corrected typos in PACKAGE column of Section 5.12, Thermal Resistance Characteristics	37
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• Added the note "For more information about traditional and new thermal metrics..." in Section 5.12, Thermal Resistance Characteristics	37
• Added second row to t_{Sample} parameter in Table 5-25, 12-Bit ADC, Timing Parameters	60
• Removed ADC12DIV from the formula for the $t_{CONVERT}$ TYP time, because ADC12CLK is after division	60
• Added " $R_S < 10\text{ k}\Omega$ " to the note that starts "Approximately 10 Tau (τ) are needed..." on Table 5-25, 12-Bit ADC, Timing Parameters	60
• Changed the note that starts "Tools that access the Spy-Bi-Wire and BSL interfaces..."	67
• Updated Section 6.3, Operating Modes , including subsections and tables	69
• Changed description in Section 6.4, Interrupt Vector Table and Signatures	72
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• Changed all instances of "bootstrap loader" to "bootloader" throughout document	75
• Corrected spelling of NMIIFG in Table 6-10, System Module Interrupt Vector Registers	79
• Added Table 6-19, LCD Automatic Charge Pump Disable Bits (LCDCPDISx)	86
• Added ACLK to P7.1 in PIN NAME column of Table 6-33	105
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• Added AESACTL1 register in Table 6-80, AES Accelerator Registers	140
• Changed the requirements for the capacitor on the RST/NMI pin in Section 7.1.4, Reset	146
• Replaced former section <i>Development Tools Support</i> with Section 8.3, Tools and Software	153
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• Added the note "For more information about traditional and new thermal metrics..." in Section 5.12, Thermal Resistance Characteristics	38
• Added second row to t_{Sample} parameter in Table 5-25, 12-Bit ADC, Timing Parameters	61
• Removed ADC12DIV from the formula for the t_{CONVERT} TYP time, because ADC12CLK is after division	61
• Added " $R_{\text{S}} < 10 \text{ k}\Omega$ " to the note that starts "Approximately 10 Tau (τ) are needed..." on Table 5-25, 12-Bit ADC, Timing Parameters	61
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• Added Table 6-5, Signatures , and moved contents from Table 6-4	79
• Changed all instances of "bootstrap loader" to "bootloader" throughout document	80
• Corrected spelling of NMIFG in Table 6-10, System Module Interrupt Vector Registers	84
• Added Table 6-19, LCD Automatic Charge Pump Disable Bits (LCDCPDISx)	91
• Added ACLK to P7.1 in PIN NAME column of Table 6-33	111
• Corrected value of "x" column in PJ.7/HFXOUT row	126
• Changed the requirements for the capacitor on the $\overline{\text{RST}}/\text{NMI}$ pin in Section 7.1.4, Reset	154
• Replaced former section <i>Development Tools Support</i> with Section 8.3, Tools and Software	163
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• Added Added AES256 to block diagram for MSP430FR598x, MSP430FR598x1.	4
• Added Section 3.1, Related Products	8
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The datasheet number will be changing.

Device Family	Change From:	Change To:
MSP430FR6979, MSP430FR69791, MSP430FR6977 MSP430FR6928, MSP430FR6927, MSP430FR69271	SLAS797A	SLAS797B
MSP430FR6889, MSP430FR68891, MSP430FR6888, MSP430FR6887 MSP430FR5889, MSP430FR58891, MSP430FR5888, MSP430FR5887	SLASE32A	SLASE32B
MSP430FR6879, MSP430FR68791, MSP430FR6877	SLASE33A	SLASE33B
MSP430FR6989, MSP430FR69891, MSP430FR6988, MSP430FR6987 MSP430FR5989, MSP430FR59891, MSP430FR5988, MSP430FR5987, MSP430FR5986	SLAS789B	SLAS789C

These changes may be reviewed at the datasheet links provided.

<http://www.ti.com/product/MSP430FR6979>

<http://www.ti.com/product/MSP430FR6889>

<http://www.ti.com/product/MSP430FR6879>

<http://www.ti.com/product/MSP430FR6989>

Reason for Change:

To accurately reflect device characteristics.

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

No anticipated impact. This is a specification change announcement only. There are no changes to the actual device.

Changes to product identification resulting from this PCN:

None.

Product Affected:

MSP430FR69271IPM	MSP430FR69271IPMR	MSP430FR69271IRGCR	MSP430FR69271IRGCT
MSP430FR6927IPM	MSP430FR6927IPMR	MSP430FR6927IRGCR	MSP430FR6927IRGCR
MSP430FR6928IPM	MSP430FR6928IPMR	MSP430FR6977IPN	MSP430FR6977IPNR
MSP430FR6977IPZ	MSP430FR6977IPZR	MSP430FR69791IPN	MSP430FR69791IPNR
MSP430FR69791IPZ	MSP430FR69791IPZR	MSP430FR6979IPN	MSP430FR6979IPNR
MSP430FR6979IPZ	MSP430FR6979IPZR	MSP430FR5887IPM	MSP430FR5887IPMR
MSP430FR5887IRGCR	MSP430FR5887IRGCT	MSP430FR5888IPM	MSP430FR5888IPMR
MSP430FR5888IRGCR	MSP430FR5888IRGCT	MSP430FR58891IPM	MSP430FR58891IPMR
MSP430FR58891IRGCR	MSP430FR58891IRGCT	MSP430FR5889IPM	MSP430FR5889IPMR
MSP430FR5889IRGCR	MSP430FR5889IRGCT	MSP430FR6887IPN	MSP430FR6887IPNR
MSP430FR6887IPZ	MSP430FR6887IPZR	MSP430FR6888IPN	MSP430FR6888IPNR
MSP430FR6888IPZ	MSP430FR6888IPZR	MSP430FR68891IPN	MSP430FR68891IPNR
MSP430FR68891IPZ	MSP430FR68891IPZR	MSP430FR6889IPN	MSP430FR6889IPNR
MSP430FR6889IPZ	MSP430FR6889IPZR	MSP430FR6877IPN	MSP430FR6877IPNR
MSP430FR6877IPZ	MSP430FR6877IPZR	MSP430FR68791IPN	MSP430FR68791IPNR

MSP430FR68791IPZ	MSP430FR68791IPZR	MSP430FR6879IPN	MSP430FR6879IPNR
MSP430FR6879IPZ	MSP430FR6879IPZR	MSP430FR5986IPM	MSP430FR5986IPMR
MSP430FR5987IPM	MSP430FR5987IPMR	MSP430FR5987IRGCR	MSP430FR5987IRGCT
MSP430FR5988IPM	MSP430FR5988IPMR	MSP430FR5988IRGCR	MSP430FR5988IRGCT
MSP430FR59891IPM	MSP430FR59891IPMR	MSP430FR59891IRGCR	MSP430FR59891IRGCT
MSP430FR5989IPM	MSP430FR5989IPMR	MSP430FR5989IRGCR	MSP430FR5989IRGCT
MSP430FR6987IPN	MSP430FR6987IPNR	MSP430FR6987IPZ	MSP430FR6987IPZR
MSP430FR6988IPN	MSP430FR6988IPNR	MSP430FR6988IPZ	MSP430FR6988IPZR
MSP430FR69891IPN	MSP430FR69891IPNR	MSP430FR69891IPZ	MSP430FR69891IPZR
MSP430FR6989IPN	MSP430FR6989IPNR	MSP430FR6989IPZ	MSP430FR6989IPZR

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
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