

**Product Change Notification - SYST-31QEFB481**


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**Date:**

04 Feb 2020

**Product Category:**

32-bit Microcontrollers

**Affected CPNs:**

**Notification subject:**

Data Sheet - SAM C20/C21 Family Data Sheet

**Notification text:**

SYST-31QEFB481

Microchip has released a new Product Documents for the SAM C20/C21 Family Data Sheet of devices. If you are using one of these devices please read the document located at [SAM C20/C21 Family Data Sheet](#).

**Notification Status:** Final

**Description of Change:** This revision includes the following changes

Section Name	Update Description
Configuration Summary	<ul style="list-style-type: none"> <li>Updated Table 1-3 SAM C21 Family Features with new values for the PTC</li> </ul>
Block Diagram	<ul style="list-style-type: none"> <li>Updated Table 1-4 SAM C20 Family Features with new values for the AC</li> </ul> <p>Updated the arrow to bridge between PORT and AHB- APB Bridge B.</p>
Signal Descriptions	Updated Table 5-1 Signal Descriptions List - SAM C20/C21 with small typographical edits for VOUT and VREFA.
Multiplexed Signals	Updated Table 6-1, Table 6-2, Table 6-3, and Table 6-4 with new ADC-DAC/VREFA values in the REF column.
Processor and Architecture	Updated Table 10-3 and 10-4 in Interrupt Line Mapping with notations designating which chip the Peripheral Source applies to.
GCLK	<ul style="list-style-type: none"> <li>Updated Figure 16-1 Block Diagram to correct missing information</li> <li>Updated the GENCTRL bit for the SYNCBUSY register</li> </ul>
MCLK	<ul style="list-style-type: none"> <li>Updated the AHBMASK Register to display the DIVAS and APBD bits</li> <li>Updated the TC4 bit of the APBCMASK Register to display the Description table</li> <li>Updated the APBDMASK Register with a new note on availability of features for SAMC2x "N" Series devices</li> </ul>
PM	Updated the SLEEPMODE bit of the SLEEPCFG Register with new data in the table.

OSCCTRL	Updated the AMPGC bit of the XOSCCTRL Register with a new note.
SUPC	<ul style="list-style-type: none"> <li>&amp;bull; Updated Voltage Reference System Operation with new text referencing the INTREF</li>   <li>&amp;bull; Updated Selecting a Voltage Reference with new text for the INTREF</li>   <li>&amp;bull; Updated the ACTCFG bit of the BODVDD Register to remove an erroneous reference to Sleep Mode</li>   <li>&amp;bull; Updated the STDBYCFG bit of the BODVDD Register with new table values</li> </ul>
EIC	Updated the LOCK Register with new reset values.
NVMCTRL	
PORT I/O Pin Controller	Corrected typographical error in OUTTGL reference in Features.
CAN	<ul style="list-style-type: none"> <li>&amp;bull; Updated Power Management with new interrupt text</li>   <li>&amp;bull; Updated Sleep Mode Operation with new introductory sentence</li> </ul>
CCL	<ul style="list-style-type: none"> <li>&amp;bull; Updated Truth Table Inputs Selection for Internal Events Inputs Selection (EVENT) with C20/C21 availability text</li>   <li>&amp;bull; Updated the table for the INSELx bit in the LUTCTRLn Register</li> </ul>
ADC	<ul style="list-style-type: none"> <li>&amp;bull; Updated Overview with supporting text for the  INTREF voltage reference</li>   <li>&amp;bull; Updated Features with new supporting text for  INTREF</li>   <li>&amp;bull; Updated Analog Connections with new supporting text for INTREF</li>   <li>&amp;bull; Updated Reference Configuration with new supporting text for INTREF</li>   <li>&amp;bull; Updated the REFSEL bit for the REFCTRL</li> </ul>



	<ul style="list-style-type: none"> <li>Updated Table 45-23 Operating Conditions in Sigma-Delta Analog-to-Digital Converter (SDADC) Characteristics with the addition of a note and the removal of single-ended mode references</li> <li>Updated Crystal Oscillator Characteristics with a new equation and removed CSHUNT from the diagram</li> </ul>
Electrical Characteristics at 105&deg;C	Updated Table 47-8 Operating Conditions in Sigma-Delta Analog-to-Digital Converter (SDADC) Characteristics to remove the Single-ended mode reference and added new note.
AEC Q100 Grade 1, Electrical Characteristics at 125&deg;C	Updated Table 48-3 Current Consumption with new values for the Maximum under Standby.
Schematic Checklist	Removed pF references from Figure 50-7 Crystal Oscillator Schematic and removed pF references from Table 50-5 in Crystal Oscillator

**Impacts to Data Sheet:** None

**Reason for Change:** To Improve Manufacturability

**Change Implementation Status:** Complete

**Date Document Changes Effective:** 04 Feb 2020

**NOTE:** Please be advised that this is a change to the document only the product has not been changed.

**Markings to Distinguish Revised from Unrevised Devices:** N/A

**Attachment(s):**

[SAM C20/C21 Family Data Sheet](#)

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Affected Catalog Part Numbers (CPN)

ATSAMC20E15A-ANT  
ATSAMC20E15A-AUT  
ATSAMC20E15A-AZ  
ATSAMC20E15A-AZT  
ATSAMC20E15A-MNT  
ATSAMC20E15A-MUT  
ATSAMC20E15A-MZ  
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