



Product Change Notification / SYST-11XILA549

Date:

15-Dec-2020

Product Category:

32-bit Microcontrollers

PCN Type:

Document Change

Notification Subject:

Data Sheet - SAM C20/C21 Family Data Sheet

Affected CPNs:

[SYST-11XILA549_Affected_CPN_12152020.pdf](#)

[SYST-11XILA549_Affected_CPN_12152020.csv](#)

Notification Text:

Notification Status: Final

Description of Change: This revision includes the following changes

SYST-11XILA549

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](#).

Section	Updates
Configuration Summary	Updated the number of ADC channels for the SAM C21 in the SAM C21 Family Features table.
Processor and Architecture	The bit address and reset value in SRAM Quality of Service.
DSU	Updated Testing of On-Board Memories MBIST with new test actions in the MBIST Operation Phases table.

Clock System	Updated the Clock Request Routing image in On-demand, Clock Requests.
GCLK	Updated the CHEN bit of the PCHCTRLM Register with a new verbiage.
MCLK	- Updated Peripheral Clock Masking topic with the removal of the table - Updated the APBCMASK Register with a new R/W property for the DAC bit
OSC32KCTRL	Updated the XOSC32K register with a new verbiage for the STARTUP bit
RTC	Updated the following registers with new notes: - FREQCORR - COUNT (COUNT32 Mode) - COMP (COUNT32 Mode) - COUNT (COUNT16 Mode) - PER (COUNT16 Mode) - COMPn (COUNT16 Mode) - CLOCK (Clock/Calendar Mode) - ALARM (Clock/Calendar Mode) - MASK (Clock/Calendar Mode)
DMAC	Updated the DESCADDR Register with 64 as the new number of bits for alignment in the DECADDR bit.
NVMCTRL	- Updated the ADDR Register with a new verbiage and added an example - Updated the LOCK Register with a new Register reset value, and a new verbiage for the LOCK bit
EVSYS	- Updated Features with a new text for the last bulleted item - Updated the table in the CHANNEL bit of the USERM register
SERCOM I2C	Updated the 33.4 Signal Description with a new cross reference.
CAN	Updated the RF1L bit verbiage in the RXF1S Register.
TC	Updated the following topics with additions to the titles, a new note, and image updates: - Capture Operations - Event and I/O pin Capture Action - Period and Pulse-Width (PPW) Capture Action on Events - Pulse-Width Capture Action on Events - Time-Stamp Capture on Event or pin Updated the following registers with a new verbiage: - CTRLBCLR with updates to the LUPD bit CTRLBSET with updated to the LUPD bit
TCC	Updated the CTRLA Register with the addition of the DMAOS bit.
CCL	Updated this chapter with the following items: - Clarified the 4 programmable Lookup Tables in Features - Added a new Block Diagram Updated the Signal Description with new Pin names in the table
AC	Updated the COMPCTRL Register with new Descriptions in the tables for the MUXPOS and MUXNEG bits
45. Electrical Characteristics 85°C (SAM C20/C21 E/G/J)	Updated the following Topics: 45.9 I/O Pin Characteristics with the addition of verbiage for the RESET_N pin

	- Updated the Diagrams in BODVDD - Brown Out Detector Characteristics - Updated Analog-to-Digital Converter (ADC) Characteristics by removing an erroneous equation segment. Updated table formatting to better display the tables within this chapter. - Updated the table formatting in Digital to Analog Converter (DAC) Characteristics to better display the information Updated the table formatting and verbiage in Voltage Reference Characteristics
Electrical Characteristics 105°C (SAM C20/C21 E/G/J)	Updated the following Topics: Updated the Diagrams in BODVDD - Brown Out Detector Characteristics
Electrical Characteristics 105°C (SAM C20/C21 N)	Updated the following Topics: - Updated the Diagrams in BODVDD - Brown Out Detector Characteristics - Updated Analog-to-Digital Converter (ADC) Characteristics by removing an erroneous equation segment. Updated table formatting to better display the tables within this chapter. - Updated the table formatting in Digital to Analog Converter (DAC) Characteristics to better display the information Updated the table formatting and verbiage in Voltage Reference Characteristics
Electrical Characteristics AEC - Q100 Grade 1, 125°C (SAM C20/C21E/G/J)	Updated the following Topics: - I/O Pin Characteristics with the addition of verbiage for the RESET_N pin - Updated the table formatting in Digital to Analog Converter (DAC) Characteristics to better display the information Updated the table formatting and verbiage in Voltage Reference Characteristics
Electrical Characteristics AEC - Q100 Grade 1, 125°C (SAM C20/C21N)	Updated the following Topics: Updated the Diagrams in BODVDD - Brown Out Detector Characteristics Updated Analog-to-Digital Converter (ADC) Characteristics with new table formatting to better display the tables within this chapter
Appendix A	Added a new appendix for ISELED parts specification and ordering information.
Appendix B	Added a new Appendix for SIL 2 Enabled Functional Safety Devices.

Impacts to Data Sheet: None

Reason for Change: To Improve Manufacturability

Change Implementation Status: Complete

Date Document Changes Effective: 15 Dec 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

Attachments:

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

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