



Product Change Notification / SYST-25EAYY050

Date:

28-Jun-2021

Product Category:

32-bit Microcontrollers

PCN Type:

Document Change

Notification Subject:

Data Sheet - SAM L10/L11 Family Data Sheet Revision

Affected CPNs:

[SYST-25EAYY050_Affected_CPN_06282021.pdf](#)

[SYST-25EAYY050_Affected_CPN_06282021.csv](#)

Notification Text:

SYST-25EAYY050

Microchip has released a new Product Documents for the SAM L10/L11 Family Data Sheet of devices. If you are using one of these devices please read the document located at [SAM L10/L11 Family Data Sheet](#).

Notification Status: Final

Description of Change: The following additions or updates were done during this revision:

1. General
 - 1.1 Throughout the entire document all references of “Master” were changed to “Host,” and “Slave” was changed to “Client,” where applicable
 - 1.2 Previous Revision histories were consolidated to clean up the flow of the document
2. Features - Added new information for PWM Modes using TC peripherals.
3. Analog Peripherals Consideration - Updated the note for Caution, and the Analog Signal Components Interconnections Diagram
4. Memories
 - 4.1 Updated Flash with a new Caution note
 - 4.2 Updated Data Flash with a new Caution note
5. SAM L11 Specific Security Features - Added two new figures to SAM L11 Memory Mapping Configuration Summary:
 - 5.1 SAM L11 Default Memories Mapping - 64KB Flash Case
 - 5.2 SAM L11 Default Memories Mapping - 16/32KB Flash Case

6. Clock System - Updated the figure in On Demand Clock Requests to read CHEN instead of CLKEN
7. MCLK
 - 7.1 Updated Clock Ready Flag with text regarding the CPUDIV value
 - 7.2 Updated the INTFLAG Register with new text for the CKRDY bitfield
8. FREQM
 - 8.1 Updated the Block Diagram. CLK_REF is now CLK_REF_MUX
 - 8.2 Updated CLK_REF to read CLK_REF_MUX in Principle of Operation
 - 8.3 Updated CLK_REF to read CLK_REF_MUX in Measurement
9. PM
 - 9.1 Added all new text and a new caution note to SRAM Power Switch Configuration
 - 9.2 Added a caution note to the PWCFG Register, and updated the existing KB Flash tables and added new tables for 32KB and 16KB
 - 9.3 Corrected a typographical error in the INTFLAG Register
10. OSCCTRL
 - 10.1 An important note was added to External Multipurpose Crystal Oscillator (XOSC) Operation
 - 10.2 An important note was added to Clock Failure Detection Operation
 - 10.3 Replaced text in the last paragraph of Initialization, Enabling, Disabling, and Resetting
 - 10.4 Updated the XOSCCTRL Register with new text and note for the STARTUP Bitfield
11. OSC32KCTRL
 - 11.1 Updated Overview with new text
 - 11.2 Updated 32KHz External Crystal Oscillator (XOSC32K) Operation with a new important note
 - 11.3 Added new text and an important note to Clock Failure Detection Operation
 - 11.4 Updated bitfield descriptions in the following registers with new important notes, and new text:
 - 11.4.1 RTCCTRL
 - 11.4.2 XOSC32K
12. RTC - Updated the following registers with new notes:
 - 12.1 COUNT (COUNT32)
 - 12.2 COUNT (COUNT16)
13. DMAC - Updated the following registers with new bit alignment values:
 - 13.1 BASEADDR
 - 13.2 WRBADDR
 - 13.3 DESCADDR
14. PORT - Updated the figure in the Functional Description
15. EVSYS - Updated Sleep Mode Operation with a new note and a new row to the Event Channel Sleep Behavior Table
16. SERCOM - Updated I/O Lines with new text
17. SERCOM USART
 - 17.1 Updated I/O Lines with new text
 - 17.2 Updated the bit description for the MAXITER bit in the CTRLC Register
18. SERCOM SPI
 - 18.1 Updated I/O Lines with new text
 - 18.2 Updated the DOPO bitfield with new text in the CTRLA Register
19. SERCOM I²C
 - 19.1 Updated I/O Lines with new text
 - 19.2 Updated the CTRLB Register with new bitfield access values for the CMD and QCEN bitfields
20. TC
 - 20.1 Updated Capture Operations with new notes
 - 20.2 Updated Event Capture Action to read Event Capture Action on Events or I/Os, added new text and corrected capitalization in the diagram
 - 20.3 Updated Period and Pulse-Width (PPW) Capture Action to read Period and Pulse-Width (PPW/PWP) Capture Action on Events, and updated capitalization in the diagram
 - 20.4 Updated Pulse Width Capture Action to read Pulse-Width (PW) Capture Action on Events, and updated the capitalization in the diagram
 - 20.5 Updated Time Stamp Capture to read Time-Stamp Capture on Events or I/Os and removed the term Capture from the diagram
 - 20.6 Removed non-applicable text from Events
 - 20.7 Added new notes to the following registers:
 - 20.7.1 CTRLBCLR
 - 20.7.2 CTRLBSET
21. CCL - Updated Truth Table Inputs Selection with a new figure for Linked Lut Input Selection
22. ADC
 - 22.1 Removed non-applicable text from Events
 - 22.2 Updated the SAMPLEN bitfield with new text and corrected the equation. A new note was added to refer to the ADC Electrical specifications.
 - 22.3 Updated the table for the REFSEL bitfield in the REFCTRL Register for the value 0x1

- 23. AC - Updated the Block Diagram to display DAC as DAC Output.
- 24. DAC
 - 24.1 Updated the Signal Description with a new note
 - 24.2 Updated Events with a new note
 - 24.3 Updated the EVCTRL Register with new Description values for the STARTEI bitfield
- 25. OPAMP - Updated the Signal Description with a new note.
- 26. Schematic Checklist - Updated the Introduction with all new content and a caution note for a noisy environment

Impacts to Data Sheet: None

Reason for Change: To Improve Productivity

Change Implementation Status: Complete

Date Document Changes Effective: 28 June 2021

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 L10/L11 Family Data Sheet](#)

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Affected Catalog Part Numbers (CPN)

ATSAML11E16A-AZT
ATSAML10E14A-AFT
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ATSAML11E14A-AFT
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