



Product Change Notification / SYST-23LKIS157

Date:

28-Mar-2023

Product Category:

LIN System-in-Package

PCN Type:

Document Change

Notification Subject:

Data Sheet - ATSAMHA1EXXA - Low-Power Automotive SiP Product

Affected CPNs:

[SYST-23LKIS157_Affected_CPN_03282023.pdf](#)

[SYST-23LKIS157_Affected_CPN_03282023.csv](#)

Notification Text:

SYST-23LKIS157

Microchip has released a new Datasheet for the ATSAMHA1EXXA - Low-Power Automotive SiP Product of devices. If you are using one of these devices please read the document located at [ATSAMHA1EXXA - Low-Power Automotive SiP Product](#)

Notification Status: Final

Description of Change:

- Updated the I/O Multiplexing and Considerations chapter:
 - Updated Pin MUX table for PA06 AIN function.
- Updated the GPIO clusters, removing pins not present on this device.
- Added IOBUS to the Physical memory map chapter.
- Updated the Generic Clock Generator Division chapter, clarifying the use of division factor bits and adding missing Write-Synchronized property.
- Updated table Generic Clock Selection ID, fixing erroneous entries.
- Updated the DAC INTENSET chapter, clarifying the description of the SYNCRDY bit.
- Added the DID values in chapter DSU.DID.
- Clarified the Reset values in chapter DSU.STATUSB.
- Clarified description for the GAIN bits in the SYSCTRL.XOSC register.
- Updated typical application diagram.
- Added note clarifying the mode transitions.
- Dynamic max ratings of pin VS updated in Table Max ratings.

- Clarified Usage of DMAC in Low-Power modes and Sleep mode operation.
- Fixed wrong info in the bit description for DMA TRIGSRC.
- Removed references to external interrupts in register EVCTRL in chapter EIC that are not present on this device.
- Fixed TC Pairing info for COUNT32 mode.
- Added Reset schematic diagram.
- Clarified relation between VDDIN and VDDIO Power domain overview, Multiplexed signals and Power supply connections.
- Fixed conditions for parameter 10.10 in the electrical characteristics for the SBC.
- The errata section has been moved to a separate document that can be found on the product webpage.
- Updated chapter DMA in DMAC Functional description. Removed reference to non-existent bit CHCTRLA.BURSTLEN.
- Fixed Reset Value of Register QOSCTRL in chapter DMAC.
- Fixed description of DRDY bit in register INTFLAG in I2C Slave-mode to include data reception.
- Clarified description of Standby mode with regards to RAM retention.
- Fixed maximum clock frequency for DAC in Table Maximum Peripheral Clock Frequencies.
- Fixed typo in the description of the bitfield EN32K in register OSC32K.
- Updated reset value in register LOCK in chapter NVMCTRL.
- Removed reference to non-existent bit RUNSTDBY in the bit description of bit ONDEMAND in register DFLCTRL.
- Corrected address and default value for the CPU QOS level.
- Clarified behavior of Continuous read requests in chapter Read Request.
- Corrected Properties of register DATA in chapter SERCOM I2C.
- Updated bit description for RCONT in register READREQ in chapter TC.
- Updated ADC block diagram to clarify in chapter ADC.
- Added clarifying note in bitfield REFSEL in register REFCTRL in chapter ADC.
- Fixed information in the bitfield EVGEN in register Channel in Chapter EVSYS.
- Updated BOD Reset diagram in chapter Elchar to clarify Reset behavior.
- The SPI and I2C standards use the terminology "Master" and "Slave". The equivalent Microchip terminology used in this document is "Host" and "Client" respectively. These terms have been updated throughout this document for this revision.
- The LIN standards use the terminology "Master" and "Slave". The equivalent Microchip terminology used in this document is "Commander" and "Responder" respectively. These terms have been updated throughout this document for this revision.

Impacts to Data Sheet: See above details.

Reason for Change: To Improve Productivity

Change Implementation Status: Complete

Date Document Changes Effective: 28 March 2023

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:

ATSAMHA1EXXA - Low-Power Automotive SiP Product

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Affected Catalog Part Numbers (CPN)

ATSAMHA0E14A-MZT-BV08

ATSAMHA1E16A-MBT-B510

ATSAMHA1E15A-MBT-B510

ATSAMHA1E14A-MBT-B510

ATSAMHA1E16A-MBT-BVAO

ATSAMHA1E15A-MBT-BVAO

ATSAMHA1E14A-MBT-BVAO

ATSAMHA0E16A-MZT-BVAO

ATSAMHA0E15A-MZT-BVAO

ATSAMHA0E14A-MZT-BVAO

ATSAMHA1E16A-MBT-BV05