



# SAM9X60 SIP Device

## SAM9X60 SIP Device Silicon Errata and Data Sheet Clarifications

### SAM9X60 SIP Device

The SAM9X60 SIP device that you have received conforms functionally to the current Device Data Sheet (DS60001580), except for the anomalies described in this document.

The silicon issues discussed in the following pages are for silicon revisions with the Device and Revision IDs listed in the following table. The silicon issues are summarized in [1. Silicon Issue Summary](#).

**Note:** This document summarizes all silicon errata issues from all revisions of silicon, previous as well as current.

Data Sheet clarifications and corrections (if applicable) are located in [3. Data Sheet Clarifications](#), following the discussion of silicon issues.

The Device and Revision ID values for the SAM9X60 SIP silicon device are shown in the following table.

**Table 1. SAM9X60 SIP Silicon Device Identification**

| Part Number | Silicon Revision | Device Identification |                   |
|-------------|------------------|-----------------------|-------------------|
|             |                  | CHIPID_CIDR[31:0]     | CHIPID_EXID[31:0] |
| SAM9X60D5M  | A0               | 0x819B35A2            | 0x00000001        |
|             | A1               | 0x819B35A1            |                   |
| SAM9X60D1G  | A0               | 0x819B35A2            | 0x00000010        |
|             | A1               | 0x819B35A1            |                   |
| SAM9X60D6K  | A0               | 0x819B35A2            | 0x00000011        |
|             | A1               | 0x819B35A1            |                   |

**Note:** Refer to the "Chip Identifier" and "Product Identification System" sections in the current device data sheet (DS60001580) for detailed information on chip identification and version for your specific device.

### 1. Silicon Issue Summary



**Important:** The following issues come in addition to the issues listed in the SAM9X60 device errata (DS80000846).

**Table 1-1. Silicon Issue Summary**

| Module          | Item/Feature                                                                       | Summary                                                    | Affected Silicon Revisions |    |  |
|-----------------|------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------|----|--|
|                 |                                                                                    |                                                            | A0                         | A1 |  |
| Package Marking | <a href="#">2.1 Wrong Package Marking for Selected 512 Mb DDR2-SDRAM SIP Parts</a> | Some parts marked “SAM9X60D5M-V” instead of “SAM9X60D5M-I” | X                          | X  |  |
|                 | <a href="#">2.2 Wrong Package Marking for Selected 1 Gb DDR2-SDRAM SIP Parts</a>   | Some parts marked “SAM9X60D1G-V” instead of “SAM9X60D1G-I” | X                          | X  |  |

## 2. Package Marking

### 2.1 Wrong Package Marking for Selected 512 Mb DDR2-SDRAM SIP Parts

Parts with the following date codes were wrongly marked SAM9X60D5M-V instead of SAM9X60D5M-I:

1932U2W, 1932U3R, 1932U43, 1937AEY

#### Work Around

None

#### Affected Silicon Revisions

|    |    |  |  |  |  |  |  |
|----|----|--|--|--|--|--|--|
| A0 | A1 |  |  |  |  |  |  |
| X  | X  |  |  |  |  |  |  |

### 2.2 Wrong Package Marking for Selected 1 Gb DDR2-SDRAM SIP Parts

Parts with the following date codes were wrongly marked SAM9X60D1G-V instead of SAM9X60D1G-I:

1932TT3, 1932VY9, 1932VYA, 1937AEJ

#### Work Around

None

#### Affected Silicon Revisions

|    |    |  |  |  |  |  |  |
|----|----|--|--|--|--|--|--|
| A0 | A1 |  |  |  |  |  |  |
| X  | X  |  |  |  |  |  |  |

**3. Data Sheet Clarifications**

No clarifications to report at this time.

## **4. Revision History**

### **4.1 DS80000859B - 10/2021**

Added silicon revision information throughout

### **4.2 DS80000859A - 10/2019**

First issue.

## The Microchip Website

---

Microchip provides online support via our website at [www.microchip.com/](http://www.microchip.com/). This website is used to make files and information easily available to customers. Some of the content available includes:

- **Product Support** – Data sheets and errata, application notes and sample programs, design resources, user's guides and hardware support documents, latest software releases and archived software
- **General Technical Support** – Frequently Asked Questions (FAQs), technical support requests, online discussion groups, Microchip design partner program member listing
- **Business of Microchip** – Product selector and ordering guides, latest Microchip press releases, listing of seminars and events, listings of Microchip sales offices, distributors and factory representatives

## Product Change Notification Service

---

Microchip's product change notification service helps keep customers current on Microchip products. Subscribers will receive email notification whenever there are changes, updates, revisions or errata related to a specified product family or development tool of interest.

To register, go to [www.microchip.com/pcn](http://www.microchip.com/pcn) and follow the registration instructions.

## Customer Support

---

Users of Microchip products can receive assistance through several channels:

- Distributor or Representative
- Local Sales Office
- Embedded Solutions Engineer (ESE)
- Technical Support

Customers should contact their distributor, representative or ESE for support. Local sales offices are also available to help customers. A listing of sales offices and locations is included in this document.

Technical support is available through the website at: [www.microchip.com/support](http://www.microchip.com/support)

## Microchip Devices Code Protection Feature

---

Note the following details of the code protection feature on Microchip products:

- Microchip products meet the specifications contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is secure when used in the intended manner, within operating specifications, and under normal conditions.
- Microchip values and aggressively protects its intellectual property rights. Attempts to breach the code protection features of Microchip product is strictly prohibited and may violate the Digital Millennium Copyright Act.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of its code. Code protection does not mean that we are guaranteeing the product is "unbreakable". Code protection is constantly evolving. Microchip is committed to continuously improving the code protection features of our products.

## Legal Notice

---

This publication and the information herein may be used only with Microchip products, including to design, test, and integrate Microchip products with your application. Use of this information in any other manner violates these terms. Information regarding device applications is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications. Contact your local Microchip sales office for additional support or, obtain additional support at [www.microchip.com/en-us/support/design-help/client-support-services](http://www.microchip.com/en-us/support/design-help/client-support-services).

THIS INFORMATION IS PROVIDED BY MICROCHIP "AS IS". MICROCHIP MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, STATUTORY OR OTHERWISE, RELATED TO THE INFORMATION INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTIES RELATED TO ITS CONDITION, QUALITY, OR PERFORMANCE.

IN NO EVENT WILL MICROCHIP BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL LOSS, DAMAGE, COST, OR EXPENSE OF ANY KIND WHATSOEVER RELATED TO THE INFORMATION OR ITS USE, HOWEVER CAUSED, EVEN IF MICROCHIP HAS BEEN ADVISED OF THE POSSIBILITY OR THE DAMAGES ARE FORESEEABLE. TO THE FULLEST EXTENT ALLOWED BY LAW, MICROCHIP'S TOTAL LIABILITY ON ALL CLAIMS IN ANY WAY RELATED TO THE INFORMATION OR ITS USE WILL NOT EXCEED THE AMOUNT OF FEES, IF ANY, THAT YOU HAVE PAID DIRECTLY TO MICROCHIP FOR THE INFORMATION.

Use of Microchip devices in life support and/or safety applications is entirely at the buyer's risk, and the buyer agrees to defend, indemnify and hold harmless Microchip from any and all damages, claims, suits, or expenses resulting from such use. No licenses are conveyed, implicitly or otherwise, under any Microchip intellectual property rights unless otherwise stated.

## Trademarks

---

The Microchip name and logo, the Microchip logo, Adaptec, AnyRate, AVR, AVR logo, AVR Freaks, BesTime, BitCloud, CryptoMemory, CryptoRF, dsPIC, flexPWR, HELDO, IGLOO, JukeBlox, KeeLoq, Klear, LANCheck, LinkMD, maXStylus, maXTouch, MediaLB, megaAVR, Microsemi, Microsemi logo, MOST, MOST logo, MPLAB, OptoLyzer, PIC, picoPower, PICSTART, PIC32 logo, PolarFire, Prochip Designer, QTouch, SAM-BA, SenGenuity, SpyNIC, SST, SST Logo, SuperFlash, Symmetricom, SyncServer, Tachyon, TimeSource, tinyAVR, UNI/O, Vectron, and XMEGA are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

AgileSwitch, APT, ClockWorks, The Embedded Control Solutions Company, EtherSynch, Flashtec, Hyper Speed Control, HyperLight Load, IntelliMOS, Libero, motorBench, mTouch, Powermite 3, Precision Edge, ProASIC, ProASIC Plus, ProASIC Plus logo, Quiet- Wire, SmartFusion, SyncWorld, Temux, TimeCesium, TimeHub, TimePictra, TimeProvider, TrueTime, WinPath, and ZL are registered trademarks of Microchip Technology Incorporated in the U.S.A.

Adjacent Key Suppression, AKS, Analog-for-the-Digital Age, Any Capacitor, AnyIn, AnyOut, Augmented Switching, BlueSky, BodyCom, CodeGuard, CryptoAuthentication, CryptoAutomotive, CryptoCompanion, CryptoController, dsPICDEM, dsPICDEM.net, Dynamic Average Matching, DAM, ECAN, Espresso T1S, EtherGREEN, GridTime, IdealBridge, In-Circuit Serial Programming, ICSP, INICnet, Intelligent Paralleling, Inter-Chip Connectivity, JitterBlocker, Knob-on-Display, maxCrypto, maxView, memBrain, Mindi, MiWi, MPASM, MPF, MPLAB Certified logo, MPLIB, MPLINK, MultiTRAK, NetDetach, NVM Express, NVMe, Omniscient Code Generation, PICDEM, PICDEM.net, PICkit, PICtail, PowerSmart, PureSilicon, QMatrix, REAL ICE, Ripple Blocker, RTAX, RTG4, SAM-ICE, Serial Quad I/O, simpleMAP, SimpliPHY, SmartBuffer, SmartHLS, SMART-I.S., storClad, SQL, SuperSwitcher, SuperSwitcher II, Switchtec, SynchroPHY, Total Endurance, TSHARC, USBCheck, VariSense, VectorBlox, VeriPHY, ViewSpan, WiperLock, XpressConnect, and ZENA are trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

SQTP is a service mark of Microchip Technology Incorporated in the U.S.A.

The Adaptec logo, Frequency on Demand, Silicon Storage Technology, Symmcom, and Trusted Time are registered trademarks of Microchip Technology Inc. in other countries.

GestIC is a registered trademark of Microchip Technology Germany II GmbH & Co. KG, a subsidiary of Microchip Technology Inc., in other countries.

All other trademarks mentioned herein are property of their respective companies.

© 2021, Microchip Technology Incorporated and its subsidiaries. All Rights Reserved.

ISBN: 978-1-5224-9035-7

## Quality Management System

---

For information regarding Microchip's Quality Management Systems, please visit [www.microchip.com/quality](http://www.microchip.com/quality).

## Worldwide Sales and Service

| AMERICAS                                                                                                                                                                                                                                                                                               | ASIA/PACIFIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ASIA/PACIFIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EUROPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Corporate Office</b><br>2355 West Chandler Blvd.<br>Chandler, AZ 85224-6199<br>Tel: 480-792-7200<br>Fax: 480-792-7277<br>Technical Support:<br><a href="http://www.microchip.com/support">www.microchip.com/support</a><br>Web Address:<br><a href="http://www.microchip.com">www.microchip.com</a> | <b>Australia - Sydney</b><br>Tel: 61-2-9868-6733<br><b>China - Beijing</b><br>Tel: 86-10-8569-7000<br><b>China - Chengdu</b><br>Tel: 86-28-8665-5511<br><b>China - Chongqing</b><br>Tel: 86-23-8980-9588<br><b>China - Dongguan</b><br>Tel: 86-769-8702-9880<br><b>China - Guangzhou</b><br>Tel: 86-20-8755-8029<br><b>China - Hangzhou</b><br>Tel: 86-571-8792-8115<br><b>China - Hong Kong SAR</b><br>Tel: 852-2943-5100<br><b>China - Nanjing</b><br>Tel: 86-25-8473-2460<br><b>China - Qingdao</b><br>Tel: 86-532-8502-7355<br><b>China - Shanghai</b><br>Tel: 86-21-3326-8000<br><b>China - Shenyang</b><br>Tel: 86-24-2334-2829<br><b>China - Shenzhen</b><br>Tel: 86-755-8864-2200<br><b>China - Suzhou</b><br>Tel: 86-186-6233-1526<br><b>China - Wuhan</b><br>Tel: 86-27-5980-5300<br><b>China - Xian</b><br>Tel: 86-29-8833-7252<br><b>China - Xiamen</b><br>Tel: 86-592-2388138<br><b>China - Zhuhai</b><br>Tel: 86-756-3210040 | <b>India - Bangalore</b><br>Tel: 91-80-3090-4444<br><b>India - New Delhi</b><br>Tel: 91-11-4160-8631<br><b>India - Pune</b><br>Tel: 91-20-4121-0141<br><b>Japan - Osaka</b><br>Tel: 81-6-6152-7160<br><b>Japan - Tokyo</b><br>Tel: 81-3-6880-3770<br><b>Korea - Daegu</b><br>Tel: 82-53-744-4301<br><b>Korea - Seoul</b><br>Tel: 82-2-554-7200<br><b>Malaysia - Kuala Lumpur</b><br>Tel: 60-3-7651-7906<br><b>Malaysia - Penang</b><br>Tel: 60-4-227-8870<br><b>Philippines - Manila</b><br>Tel: 63-2-634-9065<br><b>Singapore</b><br>Tel: 65-6334-8870<br><b>Taiwan - Hsin Chu</b><br>Tel: 886-3-577-8366<br><b>Taiwan - Kaohsiung</b><br>Tel: 886-7-213-7830<br><b>Taiwan - Taipei</b><br>Tel: 886-2-2508-8600<br><b>Thailand - Bangkok</b><br>Tel: 66-2-694-1351<br><b>Vietnam - Ho Chi Minh</b><br>Tel: 84-28-5448-2100 | <b>Austria - Wels</b><br>Tel: 43-7242-2244-39<br>Fax: 43-7242-2244-393<br><b>Denmark - Copenhagen</b><br>Tel: 45-4485-5910<br>Fax: 45-4485-2829<br><b>Finland - Espoo</b><br>Tel: 358-9-4520-820<br><b>France - Paris</b><br>Tel: 33-1-69-53-63-20<br>Fax: 33-1-69-30-90-79<br><b>Germany - Garching</b><br>Tel: 49-8931-9700<br><b>Germany - Haan</b><br>Tel: 49-2129-3766400<br><b>Germany - Heilbronn</b><br>Tel: 49-7131-72400<br><b>Germany - Karlsruhe</b><br>Tel: 49-721-625370<br><b>Germany - Munich</b><br>Tel: 49-89-627-144-0<br>Fax: 49-89-627-144-44<br><b>Germany - Rosenheim</b><br>Tel: 49-8031-354-560<br><b>Israel - Ra'anana</b><br>Tel: 972-9-744-7705<br><b>Italy - Milan</b><br>Tel: 39-0331-742611<br>Fax: 39-0331-466781<br><b>Italy - Padova</b><br>Tel: 39-049-7625286<br><b>Netherlands - Drunen</b><br>Tel: 31-416-690399<br>Fax: 31-416-690340<br><b>Norway - Trondheim</b><br>Tel: 47-72884388<br><b>Poland - Warsaw</b><br>Tel: 48-22-3325737<br><b>Romania - Bucharest</b><br>Tel: 40-21-407-87-50<br><b>Spain - Madrid</b><br>Tel: 34-91-708-08-90<br>Fax: 34-91-708-08-91<br><b>Sweden - Gothenberg</b><br>Tel: 46-31-704-60-40<br><b>Sweden - Stockholm</b><br>Tel: 46-8-5090-4654<br><b>UK - Wokingham</b><br>Tel: 44-118-921-5800<br>Fax: 44-118-921-5820 |