

AT32UC3A3256AU-ALUT Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	AT32UC3A3256AU-ALUT-DG
Manufacturer	Microchip Technology
Manufacturer Product Number	AT32UC3A3256AU-ALUT
Description	IC MCU 32BIT 256KB FLASH 144LQFP
Detailed Description	AVR AVR®32 UC3 A3 Audio Microcontroller IC 32-Bit Single-Core 66MHz 256KB (256K x 8) FLASH 144-LQFP (20x20)

This model AT32UC3A3256AU-ALUT is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

 [Request a Quote](#)

 [Datasheet Search](#)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

AT32UC3A3256AU-ALUT

Series:

AVR®32 UC3 A3 Audio

DiGi-Electronics Programmable:

Not Verified

Core Size:

32-Bit Single-Core

Connectivity:

EBI/EMI, I2C, IrDA, Memory Card, SPI, SSC, UART/USART, USB OTG

Number of I/O:

110

Program Memory Type:

FLASH

RAM Size:

128K x 8

Data Converters:

A/D 8x10b

Operating Temperature:

-40°C ~ 85°C (TA)

Supplier Device Package:

144-LQFP (20x20)

Base Product Number:

AT32UC3

Manufacturer:

Microchip Technology

Product Status:

Obsolete

Core Processor:

AVR

Speed:

66MHz

Peripherals:

Brown-out Detect/Reset, DMA, POR, WDT

Program Memory Size:

256KB (256K x 8)

EEPROM Size:

-

Voltage - Supply (Vcc/Vdd):

1.75V ~ 3.6V

Oscillator Type:

Internal

Mounting Type:

Surface Mount

Package / Case:

144-LQFP

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.31.0001

Moisture Sensitivity Level (MSL):

3 (168 Hours)

ECCN:

3A991A2

Atmel Audio Datasheets

The following Atmel® AVR® UC3 32-bit microcontrollers are designed for audio applications:

- AT32UC3A0512AU-ALUT
- AT32UC3A0512AU-ALTRA
- AT32UC3A0256AU-ALUT
- AT32UC3A0128AU-ALUT

- AT32UC3A1512AU-AUR
- AT32UC3A1256AU-AUR

- AT32UC3A3256AU-ALUT

- AT32UC3B0512AU-Z2UR
- AT32UC3B0128AU-A2UT
- AT32UC3B0128AU-Z2UR

- AT32UC3C0512CAU-ALUT

These devices are distinguished by the AU letters before the dash in their part numbers. Please note that for a given microcontroller, not all package versions exist. Additional audio part numbers can be created upon customer demand.

The difference between an Audio microcontroller (e.g. AT32UC3A0512AU-ALUT) and its standard counterpart (e.g. AT32UC3A0512-ALUT) is not relevant to the user code.

As far as the user code is concerned, Audio parts are 100% compatible with the standard devices.

Atmel licensed Audio firmware IP cores such as the Proprietary Communication Protocol with iPod®, iPhone® or iPad® devices, MP3, WMA or AAC decoders will only work on Audio microcontrollers. These Audio firmware IP cores will not execute on standard microcontrollers (e.g. AT32UC3A0512-ALUT). The same rule may apply to additional IP cores in the future.

For technical information on an audio part (e.g. AT32UC3A0512AU-ALUT), please refer to the datasheet, architecture manual and technical reference manual of the standard counterpart (e.g. AT32UC3A0512-ALUT). The same applies for other technical documents such as IBIS files, qualification packages, etc.

Tools that support the standard version of AVR UC3 microcontrollers also support their audio counterpart.



Atmel AVR 32-bit Audio Microcontrollers

Rev. doc32174A-AVR-11/11





Atmel Corporation
 2325 Orchard Parkway
 San Jose, CA 95131
 USA
Tel: (+1)(408) 441-0311
Fax: (+1)(408) 487-2600
www.atmel.com

Atmel Asia Limited
 Unit 01-5 & 16, 19F
 BEA Tower, Millennium City 5
 418 Kwun Tong Road
 Kwun Tong, Kowloon
 HONG KONG
Tel: (+852) 2245-6100
Fax: (+852) 2722-1369

Atmel Munich GmbH
 Business Campus
 Parkring 4
 D-85748 Garching b. Munich
 GERMANY
Tel: (+49) 89-31970-0
Fax: (+49) 89-3194621

Atmel Japan
 16F, Shin Osaki Kangyo Bldg.
 1-6-4 Osaki Shinagawa-ku
 Tokyo 104-0032
 JAPAN
Tel: (+81) 3-6417-0300
Fax: (+81) 3-6417-0370

© 2011 Atmel Corporation. All rights reserved.

Atmel®, Atmel logo and combinations thereof, AVR®, and others are registered trademarks or trademarks of Atmel Corporation or its subsidiaries. Other terms and product names may be trademarks of others. iPad®, iPhone®, and iPod® are trademarks of Apple Inc., registered in the U.S. and other countries.

Disclaimer: The information in this document is provided in connection with Atmel products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Atmel products. **EXCEPT AS SET FORTH IN THE ATMEL TERMS AND CONDITIONS OF SALES LOCATED ON THE ATMEL WEBSITE, ATMEL ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ATMEL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS AND PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ATMEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.** Atmel makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Atmel does not make any commitment to update the information contained herein. Unless specifically provided otherwise, Atmel products are not suitable for, and shall not be used in, automotive applications. Atmel products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we stricly control the quality of products and services. Welcome your RFQ to

Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.