

Following the acquisition of Adesto Technologies, Dialog Semiconductor offers memory products as part of its product portfolio. The existing content from datasheets, including part numbers and codes should be used. Terms of Purchase are provided on the Dialog website

<https://www.dialog-semiconductor.com/general-terms-and-conditions-purchase>

View our Dialog memory products portfolio:

www.dialog-semiconductor.com/products/memory

Contacting Dialog Semiconductor

United Kingdom (Headquarters)

Dialog Semiconductor (UK) LTD
Phone: +44 1793 757700

Germany

Dialog Semiconductor GmbH
Phone: +49 7021 805-0

The Netherlands

Dialog Semiconductor B.V.
Phone: +31 73 640 8822

Email:

enquiry@diasemi.com

North America

Dialog Semiconductor Inc.
Phone: +1 408 845 8500

Japan

Dialog Semiconductor K. K.
Phone: +81 3 5769 5100

Taiwan

Dialog Semiconductor Taiwan
Phone: +886 281 786 222

Web site:

www.dialog-semiconductor.com

Hong Kong

Dialog Semiconductor Hong Kong
Phone: +852 2607 4271

Korea

Dialog Semiconductor Korea
Phone: +82 2 3469 8200

China (Shenzhen)

Dialog Semiconductor China
Phone: +86 755 2981 3669

China (Shanghai)

Dialog Semiconductor China
Phone: +86 21 5424 9058

DATASHEET (ADDENDUM)

High Temperature Operation (105°C)

This data sheet addendum is to be used in conjunction with the existing AT45DQ321 datasheet specifications. The Adesto AT45DQ321 32Mbit DataFlash devices will operate @ 105°C with the following datasheet caveats. All other parameters will meet the existing datasheet specifications.

The ordering code suffix (CAN# Code) 'HB' must be used to ensure correct operation at this extended temperature range. Adesto will not modify and republish the current datasheet to reflect the CAN# 'HB' ordering code or the above caveats. The standard [AT45DQ321 datasheet](http://www.adestotech.com) is available at <http://www.adestotech.com>.

1. Electrical Specifications

1.1 DC and AC Operating Range

		AT45DQ321-xxxHB
Operating Temperature		-40°C to +105°C
Endurance (Maximum)		10,000 Cycles

1.2 AC Characteristics

Symbol	Parameter	2.3V to 3.6V		Units
		Min	Max	
f _{CAR1}	SCK Frequency for Continuous Read (0x0B)		45	MHz
f _{CAR2}	SCK Frequency for Continuous Read (0x03) (Low Frequency)		25	MHz
f _{CAR3}	SCK Frequency for Continuous Read (Low Power Mode, 0x01h Opcode)		15	MHz
f _{CAR4}	SCK Frequency for Continuous Read (0x1B)		60	MHz
f _{CAR5}	SCK Frequency for Continuous Read (0x3B)		40	MHz
f _{CAR6}	SCK Frequency for Continuous Read (0x6B)		40	MHz

1.3 DC Characteristics

Symbol	Parameter	Conditions	Min	2.3V to 3.6V		Units
				Typ	Max	
I_{DPD}	Deep Power Down Current	$\overline{CE} = V_{CC}$. All other inputs at 0V or V_{CC}		5	15	μA

Notes: 1. Typical value measured at 3.0V at 25°C.

2. Ordering Code

2.1 Ordering Code Detail

Ordering Code ⁽¹⁾	Package	Operating Voltage	Max. Freq. (MHz)	Operation Range
AT45DQ321-SHFHB-T ⁽²⁾	8S2	2.3V to 3.6V	40MHz (Dual-Quad I/O)	Extended (-40°C to +105°C)
AT45DQ321-SHFHB-B ⁽²⁾			104MHz (SPI)	

1. The shipping carrier option code is not marked on the devices.
2. Binary Page size, 512 bytes.

Package Type	
8S2	8-lead, 0.208" Wide, Plastic Gull Wing Small Outline Package (EIAJ SOIC)

3. Revision History

Revision Level – Release Date	History
A – August 2016	Initial release.