

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.