

Notice Title: **Product migration from GD25LQ64C to GD25LQ64E**

Notice Record Number: GD-PCN-00240

Notice Date: Nov. 30th, 2023

Notice Type: Major

Affected Product(s): GD25LQ64C

Change Subject:

GigaDevice has initiated the product migration from GD25LQ64C to GD25LQ64E as a routine product update.

Description of Change(s):

The GD25LQ64E is a 1.8V 64M-bit Serial Flash Memory product manufactured by 55nm process technology. It is introduced as a direct replacement product for the GD25LQ64C manufactured by 65nm process. GD25LQ64E is designed and tested to be fully compatible with GD25LQ64C in terms of form, fit, function and reliability.

Impact of Changes and Recommended Actions:

No change is needed to adopt GD25LQ64E with previous GD25LQ64C design. Both products have identical functionality and Device ID. Besides, GD25LQ64E also offers lower power consumption and better page program and erase performance. Please refer to the table below for detailed comparison.

Production Status for GD25LQ64E:

Sample Availability	Apr. 2, 2020
Mass Production	May. 28, 2020

General Feature Comparison:

Feature		GD25LQ64C	GD25LQ64E
Operating Voltage Range		1.65V -2.0V	1.65V -2.0V
SPI mode		x1, x2, x4	x1, x2, x4
QPI mode		Yes	Yes
Clock Frequency	Fast Read	120MHz	133MHz
	Read	80MHz	80MHz
Operating Temperature		-40 to 85 °C	-40 to 85 °C
Architecture	Sector	4KB	4KB
	Block	32KB or 64KB	32KB or 64KB
Data Protection	Secured OTP	3x1024-Byte	3x1024-Byte
	Block Protection	BP0, BP1, BP2, BP3, BP4	BP0, BP1, BP2, BP3, BP4
	Top/Bottom Protection	Yes	Yes
	Complementary Protection	Yes	Yes
Power Consumption	Operating Current(Read)@133MHz Q=Open(*4 I/O)		typ 10 mA, max 15 mA
	Operating Current(Read)@120MHz Q=Open(*4 I/O)	typ 15 mA, max 20 mA	
	Operating Current(Read)@80MHz Q=Open(*4 I/O)	typ 13 mA, max 18 mA	typ 8 mA, max 12 mA
Program/Erase Performance	Page Programming Time	typ 0.7 ms, max 2.4 ms	typ 0.4 ms, max 2.4 ms
	Sector Erase Time (4KB)	typ 90 ms, max 500 ms	typ 40 ms, max 300 ms
	Block Erase Time (32KB)	typ 0.3 s, max 0.8 s	typ 0.15 s, max 0.8 s
	Block Erase Time (64KB)	typ 0.45 s, max 1.2 s	typ 0.2 s, max 1.2 s
	Chip Erase Time	typ 30 s, max 60 s	typ 16 s, max 40 s

Revision History:

Version No	Description	Date
1.0	Initial Release	Mar. 28, 2022
1.1	Update company name;	Nov. 30, 2023

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Comments:

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