

PCN

Due to supply chain constraints, the Spansion/Infineon/Cypress S25FL128SAGMFx00 is being supplemented with the Spansion/Infineon/Cypress S25FL127SABMFx00x on several Digilent products starting the PCA revisions listed in the table below. Affected articles will have a sticker placed on the PCB with the part number of the load option.

The S25FL127S is not functionally equivalent to the S25FL128S and might require changes to customer applications (embedded software) depending on the board support package in use (OS, drivers, and libraries). It is recommended to implement any changes that might be needed while keeping compatibility with all load options.

A non-exhaustive list of the differences between the S25FL127S and the S25FL128S:

- Read SFDP command (5Ah) is supported now. The Linux kernel driver is known to probe this command and use the SFDP feature to dynamically initialize the flash device instead of relying on a static configuration if the command is available.
- DDR Fast Read (0Dh, 0Eh), DDR Dual I/O Read (BDh, BEh), and Read DDR Quad I/O (EDh, EEh) not supported
- Memory organization: 255 64-KB and 16 4-KB bottom hybrid erase sectors vs. 254 64-KB and 32 4-KB bottom hybrid erase sectors
- Maximum clock frequency: 108 MHz vs. 133MHz. Practically however, the system board limit is usually lower. Generally, 100 MHz for read and 50 MHz for write should work on all Digilent boards unless a lower limit is specified in the reference manual.

Affected products:

Product Name	SKU	First PCA revision affected	Designator	Load options
Arty A7 (-35T)	410-319	E.1	IC4	S25FL128SAGMFx00 S25FL127SABMFx00
Arty A7 (-100T)	410-319-1	E.1	IC4	S25FL128SAGMFx00 S25FL127SABMFx00
Arty S7 (-25)	410-352-25	E.1	IC6	S25FL128SAGMFx00 S25FL127SABMFx00
Arty S7 (-50)	410-352	E.1	IC6	S25FL128SAGMFx00 S25FL127SABMFx00
Nexys A7 (-50T)	410-292-1	D.2	IC11	S25FL128SAGMFx00 S25FL127SABMFx00
Nexys A7 (-100T)	410-292	D.2	IC11	S25FL128SAGMFx00 S25FL127SABMFx00