

Differences in FM24Cxx and FM24CxxA

Applies to 16Kb and 4Kb FRAM Devices



DESCRIPTION

There are differences between “A” and “non-A” two-wire 4Kb and 16Kb FRAM devices. The FM24C04 and FM24C16 memory devices operate up to 400kHz, whereas the FM24C04A and FM24C16A operate at speeds up to 1MHz. There is also a functional difference between A and non-A parts, which involves the write protect pin WP. The original non-A parts protect the upper half of the memory array when WP is high. The new A parts protect the entire memory array when WP is high. Lastly, the A devices implement an internal pulldown on the WP pin.

DROP-IN REPLACEMENT OR NOT

The new A parts are indeed a drop-in replacement for the non-A if the WP pin is tied to ground. If WP is connected to another chip, then it is possible that the newer A device may not function exactly as the non-A device. If the system invokes the WP high and lower addresses are being written, then the two parts will behave differently. It is still possible that the two devices are compatible if only the upper half of memory is expected to be protected when the WP is high.