



DS87C530 EPROM Micro with Real-Time Clock

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REVISION A12 ERRATA

The errata listed below describe situations where DS87C530 revision A12 components perform differently than expected or differently than described in the data sheet. Dallas Semiconductor intends to correct these errata in subsequent die revisions.

This errata sheet only applies to DS87C530 revision A12 components. Revision A12 components are branded on the topside of the package with a six-digit code in the form yywwA12, where yy and ww are two-digit numbers representing the year and workweek of manufacture, respectively. To obtain an errata sheet on another DS87C530 die revision, visit our website at www.maxim-ic.com/errata.

1. SHORT RESET DURING MOVX INSTRUCTION CAUSES INITIAL WEAK ALE SIGNAL

Description:

When a short reset stimulus occurs during the execution of an extended MOVX data memory access, the ALE signal may not be driven with the strong transition drivers (V_{OH2} test levels) on the first instruction fetch following reset. This reduced drive current may not allow the ALE signal to rise to a logic high level before the first instruction fetch at location 0000h, possibly latching an incorrect address. This situation will only occur during a watchdog timer reset (the timer generates a momentary pulse to the internal reset circuitry) or when an external reset pulse of less than 2 μ s is asserted. This erratum does not affect a power-on reset as the internal crystal warm-up period counter provides a reset pulse of greater than 2 μ s.

Work Around:

If the watchdog timer reset function is employed, use the watchdog timer interrupt to ensure that the device will not be executing MOVX instructions when the watchdog timer reset occurs. If an external reset stimulus is used, be sure that it is at least 2 μ s.