



AN1000

Application note

Reduced footprint ZEROPOWER® and TIMEKEEPER® supervisor surface-mount solution

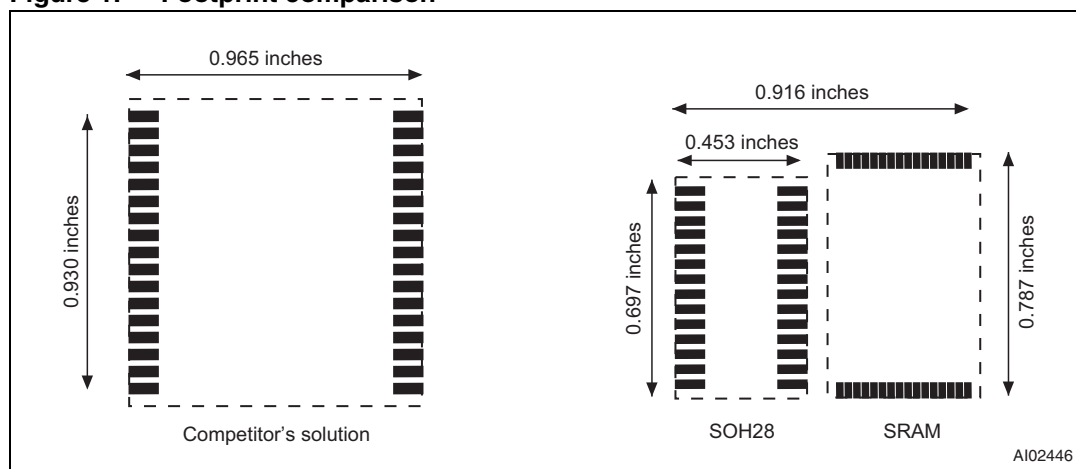
Introduction

The ZEROPOWER® and TIMEKEEPER® supervisors from STMicroelectronics (such as the M40Z300W and the M48T201V/Y) offer all the advantages of using surface-mount technology, and are well suited to automatic assembly-line processes.

Designed to be highly modular, they interface directly with commodity SRAM, and use a commercially available cell for the internal battery (which is easily replaceable). These devices are designed for lower system costs when compared to designs using competitors' hybrid products.

Moreover, even though the ST products need an external SRAM chip, the footprint of the two chips together is still 80% of that of the competitors' single chip solutions. [Figure 1](#) compares the footprint of a competitor's chip (not unlike MAXIM/Dallas Semiconductor's hybrid surface-mount PowerCap module) with an ST device connected to a 1Mbit (128K x 8) low power SRAM chip (perhaps from Hitachi, Sony or Samsung). The former solution might have a footprint of 0.965 by 0.930 inches (0.898 square inches), while the latter leads to a combined footprint of 0.916 by 0.787 inches (0.721 square inches).

Figure 1. Footprint comparison



AI02446

Revision history

Table 1. Document revision history

Date	Revision	Changes
Nov-2001	1	Initial release.
04-Oct-2011	2	Updated title, products, Figure 1 ; revised document presentation.

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