

WHITE PAPER

MTBF FOR VARIOUS CAPACITIES OF SILICONDRIVE™ SOLUTIONS

SILICONDRIVE MTBF



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INTRODUCTION

SiliconSystems' SiliconDrive™ technology is specifically designed to meet the high-performance and high-reliability requirements of Enterprise System OEMs in the netcom, military, medical, industrial control, and embedded computing markets. This document details the calculated MTBF in hours for various capacities of SiliconDrive solutions.

CALCULATION

The following data is based on the Telcordia SR-332 calculation:



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$$MTBF = \frac{1 \times 10^9}{\{ (\alpha \times \beta) + \lambda \}}$$

...where:

α = Intrinsic FIT rate for the solid-state memory component.

Note: The FIT rate prediction is calculated at 125°C, 3.3V with 60% confidence level.

β = Number of solid-state memory components.

λ = Intrinsic FIT rate for SiliconSystems' Tahoe Controller and SiliconDrive passive components.

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CALCULATED MTBF (HOURS)

Capacity	SiliconDrive 2.5"	Form Factors Supported
32MB	9,696,500	2.5" Drive, Module, PC Card, CF
64MB	9,778,039	2.5" Drive, Module, PC Card, CF
128MB	9,586,809	2.5" Drive, Module, PC Card, CF
256MB	9,206,408	2.5" Drive, Module, PC Card, CF
512MB	8,529,513	2.5" Drive, Module, PC Card, CF
1GB	8,529,513	2.5" Drive, Module, PC Card, CF
2GB	7,436,050	2.5" Drive, Module, PC Card, CF
4GB	5,918,561	2.5" Drive, PC Card, CF
6GB	4,915,454	2.5" Drive, PC Card
8GB	4,203,094	2.5" Drive, PC Card



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