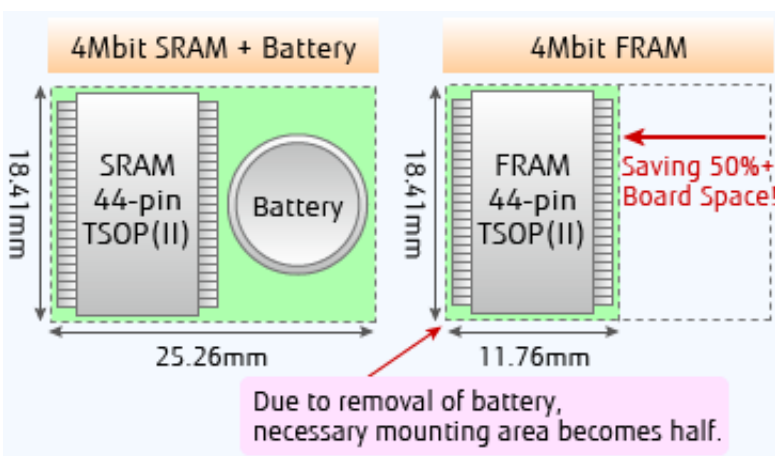


# Fujitsu releases new 4 mbit FRAM with non-volatile memory with SRAM-compatible parallel interface

November 13 2013



## Mounted Area Comparison

Fujitsu Semiconductor Limited announced the development of the MB85R4M2T, a 4 Mbit FRAM chip with an SRAM-compatible parallel interface. The new product will be made available in sample quantities starting January 2014. It uses a 44-pin TSOP package compatible with standard low-power SRAM, so it can substitute for SRAM in industrial machinery, office equipment, medical devices, security systems, and other equipment that currently uses SRAM. Because it stores data persistently with no need of a battery, it contributes to hardware that is more compact, less power-hungry, and lower in total cost.

FRAM is a type of memory that features both non-volatility, which allows data to be retained even when the power is switched off, and random access, which enables fast data writing. Because FRAM can safely store data that is being written even at sudden power source failures and power outages, it is possible to ensure the protection of parameter information and log data in equipment recorded immediately preceding a power source outage.

Fujitsu Semiconductor has added the 4 Mbit MB85R4M2T, which has an SRAM-compatible parallel interface, to its line of FRAM products. Because it uses a 44-pin TSOP package that is compatible with standard SRAM memory, it can substitute for SRAM, without major change in circuit board design, in any high reliability application using SRAM, such as industrial control units, multi-functional printers, [medical devices](#), and building [security systems](#). In addition, because it stores data with no need for battery power, it contributes to hardware that is more compact, less power-hungry, and lower in total cost, as described below.

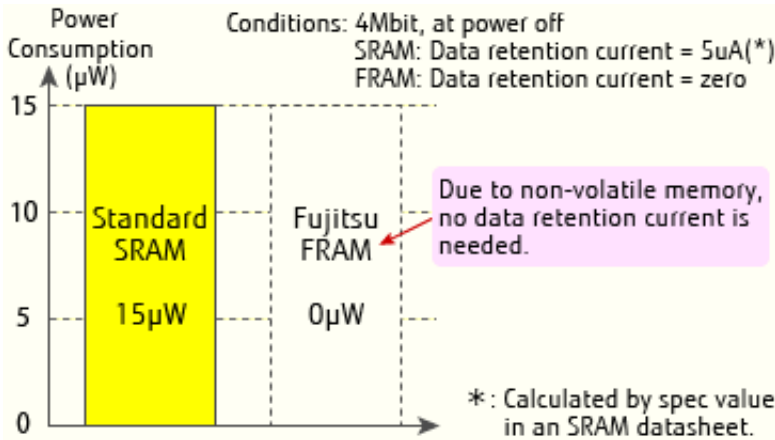
## **Reduced mounting area**

Because it removes the need for a battery to store data, the mounting area for memory and related components on PCB board in machinery can be reduced by 50% or more.

## **Reduced power consumption**

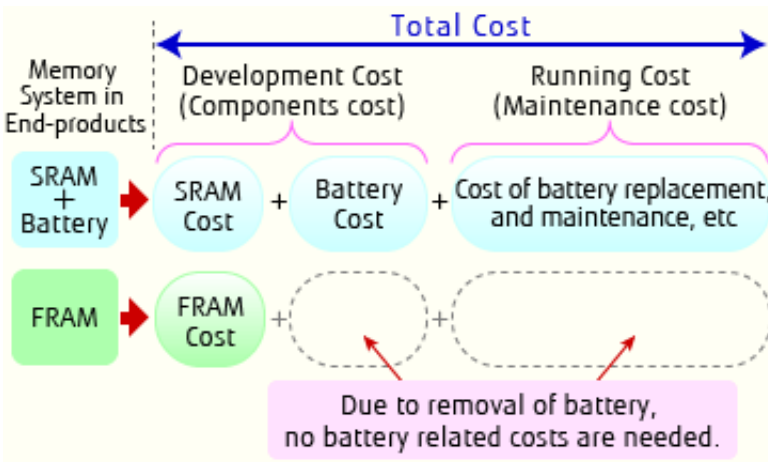
SRAM requires data retention current in order to retain data in memory when main [power](#) is shut off, consuming roughly 15  $\mu$ W. Because FRAM is non-volatile, it consumes zero electricity when off.

## **Reduced total cost**



### Power Consumption for Data Retention

Eliminating the battery not only reduces the cost of parts, it also eliminates the periodic costs associated with replacement batteries and maintenance, reducing total costs of memory system in terms of both development and running.



### Cost Comparison between Memory Systems

Fujitsu Semiconductor continues to provide its customers with [memory](#) products and solutions that contribute to increased performance and reduced total costs in their end-products.

Provided by Fujitsu

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