

## Re: A real question about EEPROM vs. Flash

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*Source:* <http://sci.tech-archive.net/Archive/sci.electronics.design/2005-07/msg02899.html>

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- *From:* Rich Grise <[richgrise@xxxxxxxxxxx](mailto:richgrise@xxxxxxxxxxx)>
  - *Date:* Fri, 22 Jul 2005 21:21:39 GMT
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On Fri, 22 Jul 2005 00:21:55 +0100, Svilen wrote:

- > A lot of differencies, starting from the physical effect. Flash is based
- > on the effect of hot electrons (if I remember correctly) and by nature
- > it is a descruptive effect, that is not the case with the EEPROM. Flash
- > basic cell is much smaller that the EEPROM one, however the periphery is
- > much much bigger, that's why the chips are cost effective for big amount
- > of memory. With EEPROM should be the opposite. The other big difference is
- > the erase/write time – much shorter(faster) for the flash, but always on
- > blocks – i.e. a single cell can't be erased/programed. This is not a
- > limitation for the EEPROM, but the write/erase time is is much slower.
- >
- > Hope this helps

Yes, considerably!

:–)

Thanks!  
Rich

> Svilen

>

> Rich Grise wrote:

- >> So, I'm bidding this ultra-sweet project, and I'm studying the data
- >> sheet of the PIC18F6520/8520/6620/8620/6720/8720, and it says, Flash:
- >> 100,000 cycles, EEPROM: 1,000,000 cycles. What are the other
- >> differences? Is flash cheaper than EEPROM? I have noticed that it tends
- >> to get used for program memory, and EEPROM for data, but are there any
- >> other differences, like, maybe program/cycle time, erase modes, that
- >> sort of thing?

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>> Thanks,

>> Rich

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- **References:**

- ◆ **[A real question about EEPROM vs. Flash](#)**

- ◇ From: Rich Grise

- ◆ **[Re: A real question about EEPROM vs. Flash](#)**

- ◇ From: Svilen

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