

Difference Between PROM and EPROM

The main difference between PROM and EPROM is that PROM can only be programmed once since it can only be written once, whereas EPROM can be reprogrammed because it is erasable. Let us check the difference between PROM and EPROM.

PROM vs EPROM	
PROM	EPROM
PROM is Programmable Read-Only Memory.	EPROM is Erasable Programmable Read-Only Memory.
When compared to EPROM, it is less expensive and more cost-effective.	When compared to PROM, it is less cost-effective and relatively more expensive.
Since PROM has a permanent memory, the process cannot be undone.	The EPROM storage procedure can be reversed because the memory isn't really permanent.
When it comes to scale and versatility, PROM outperforms EPROM.	EPROM is less scalable and flexible.
PROM was developed by Wen Tsing Chow in 1956.	EPROM was developed by Dov Frohman in 1971.
The PROM has a long storage life.	The storage duration of EPROM is less to that of PROM.

What is PROM?

A form of ROM known as PROM (Programmable Read-Only Memory) can only be programmed once. It was created to meet the need for a collection of ROMs that could each carry a certain type of memory storage. Its memory is electrically programmed by the user at the time of the first chip manufacture and is only written once. The user supplies and inserts the necessary content file within the storage coder machine.

The PROM is built using bipolar transistors, which demand a lot of power and operate quickly. It has high bit storage stability, which means that until more fuses blow and the PROM is attached to the programmer, the bits remain unchanged. When created in big quantities, PROM is useful because it provides flexibility and ease.

What is EPROM?

A sort of ROM that can only be read and written optically is called an EPROM (Erasable Programmable Read-Only Memory). Storage cells in an associated EPROM must remain in their initial state during writing. EPROM is more sensitive to radiation and electrical noise than PROM, it offers less storage permanence than PROM.

The EPROM can be reprogrammed up to 1,000 times before it starts to lose reliability. The quartz window of the EPROM outperforms UV light. EPROM is more frequently used than PROM because it enables chip customization or reprogramming by manufacturers.

Key Differences between PROM and EPROM

The key difference between PROM and EPROM are given below.

- The PROM chip is only ever programmed once. The EPROM chip, however, can be changed.
- The EPROM is more expensive than the PROM in terms of price.
- To allow the passage of UV rays, the EPROM is encased in a transparent quartz window. PROM, on the other hand, is totally covered in plastic.
- Electric noise and radiation have no effect on PROM storage permanence, while EPROM storage stability may be impacted by these factors. However, the data can be kept in an EPROM for ten years.
- PROM is completely encased in plastic. On the other hand, a transparent quartz pane that allows UV rays to pass through shields the EPROM from damage.
- The procedure is irreversible since the PROM has lasting memory. On the other hand, because EPROM memory is reversible, the storage operation can be undone.