

What Is Moore's Law?

Moore's Law states that the number of transistors on a microchip doubles every two years.

The law claims that we can expect the speed and capability of our computers to increase every two years because of this, yet we will pay less for them. Another tenet of Moore's Law asserts that this growth is exponential. The law is attributed to Gordon Moore, the co-founder and former CEO of Intel.

Moore's Law's Impending End

Experts agree that computers should reach the physical limits of Moore's Law at some point in the 2020s. The high temperatures of transistors eventually would make it impossible to create smaller circuits. This is because cooling down the transistors takes more energy than the amount of energy that already passes through the transistors. In a 2005 interview, Moore himself admitted that "...the fact that materials are made of atoms is the fundamental limitation, and it's not that far away... We're pushing up against some fairly fundamental limits so one of these days we're going to have to stop making things smaller."