

Casio is constantly advancing its technologies in five core areas: digital technologies, energy saving, durability, compact size, and ease of use.

Durability

Tough construction to withstand harsh environments

Casio continues to focus on durability so that customers can enjoy its products for many years. As one technique for increasing shock resistance, Casio mounts a strong metal plate on the back of its display panels to increase strength and prevent warping. By also placing a shock-absorbing cushion between the display panel and its casing, any external shock is mitigated and destruction of the LCD is prevented. Tough Casio calculators also offer splash-resistant and dust-resistant performance, and are used in outdoor work such as civil engineering surveying.

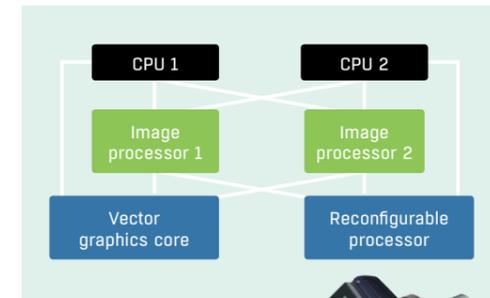


Digital technologies

High-speed image processing delivers a wide range of expression instantly

The "EXILIM Engine HS, Ver.3 ADVANCE" is a high-speed image processing engine that quickly and smoothly performs all the image processing right from digital camera startup. By simultaneously operating dual CPUs and two parallel image processors, this unique image processing engine offers high-speed operation.

One feature enabled by this technology is the world's first dual combination bracketing function. With just one press of the shutter button, the camera shoots nine images while automatically varying a pair of parameters, such as focus and aperture, or white balance and brightness, in three stages. Setting the user free from complicated settings, this feature makes it possible to shoot stunning photos and realize new possibilities for expression not seen before.



Energy saving

New concept for highly efficient solar cells

With regular solar-powered analog watches, the solar cells are arranged linearly in six sections. This is because it is necessary to have multiple cells in a series to ensure the necessary voltage. The disadvantage of this design is that the cell providing the least power impacts the entire series. When the shadow from the watch hand falls on one cell, the upper limit of power generation for the entire series is lowered.

Overcoming this, Casio developed a high-output solar cell with blocked-light distribution. By arranging the cells in a spiral and distributing the hand shadow over multiple cells, the decrease in power generation is minimized. This ensures efficient and stable power. This energy-saving technology enabled more freedom in watch designs and improved functions.

Technology

Technological expertise is needed to turn an innovative idea into a new product. Utilizing its five core technologies, Casio creates products that were not possible before.

Employee Voice

Resolving opposing issues

Yuta Saito, Timepieces Product Division

There is a tradeoff between functionality and the degree of design freedom. To achieve both these opposing goals, it is essential to increase the amount of power generation. This has been a goal in our solar cell development over many years. The inspiration came while I was watching the TV weather forecast and noticed the pattern made by a typhoon. I realized that an entirely new solar cell could be made using this spiral shape.

