



Rise of Smart Machines

Copyright 2015 Axiomtek Co., Ltd. All Rights Reserved



HP's recent product announcement reference its "revolutionary new type of computer" called "The Machine". The Machine will run open source OS as well as Linux and Android and has clusters of special-purpose cores. According to a recent article on the topic published by engadget.com, this computer offers a processing architecture designed to cope with the flood of data from an Internet of Things (IoT) device. Its "photonics link everything instead of slow, energy-hungry copper wires; memristors give it unified memory that's as fast as RAM yet stores data permanently, like a flash drive. The result is a computer that can handle dramatically larger amount of data, all the while using much less power. A Machine server could address 160 petabytes of data in 250 nanoseconds. HP says its hardware should be about six times more powerful than an existing server, even as it consumes 80 times less energy." This machine is said to be scalable and used to serve industrial needs as well as consumer needs. It can be compact and light enough to work in a laptop or phone.



The rise of smarter machines now has created a race for all in the technology industry. Some may think the winner will be the one with the most intelligent products to satisfy these unique needs. There are other factors involved. Although the trends are heading toward smarter, smaller, lighter, high-performing, low-power consumption machines with readiness for IoT, there's still room for the single core, no-frills machines for the types of jobs that don't require sophisticated systems. Simple single core machines are

lower-cost solutions. Most companies will most likely weigh costs vs. benefits prior to making a buying decision. Purchasing the smartest machines available may not justify higher operating cost/capital outlay. Pricing can clearly affect the demands for these intelligent products, which in turn, can affect future product design and availability. The future of smart machine development will undoubtedly continue to progress beyond our imagination. Its progression speed clearly depends on all of the key factors above and more.

Axiomtek has been at the forefront of the trends as they are moving full speed ahead toward heavy intelligent machine use in all industries. For example, our 2.5-inch PICO-ITX board is integrated as one of the key components of advanced medical equipment used to harness adult stem and regenerative cells in order to heal diseases. The boards offer the accuracy, performance and reliability needed for this highly advanced medical equipment. Similar to HP's The Machine, our tiny [PICO880](#) single board computer (SBC) runs open source OS and Linux. It offers high performance delivered by 4th Generation Intel® Core™ i7/i5/i3 or Celeron® processor, wide operating temperature range of -20°C to +70°C (-4°F to +158°F). It's hard to believe that this high-performing, credit-card size SBC requires little power to operate yet packed with intelligent and useful features that include an integrated GFX graphic engine, Intel® AMT management software support and great expansion capabilities.

See more Axiomtek pico-ITX SBC at [here](#).

About Axiomtek Co., Ltd.

[Axiomtek](#) Co. Ltd. is one of the world's leading designers/manufacturers of PC-based industrial computer products. From our roots as a turnkey systems integrator specializing in data acquisition and control systems, Axiomtek has mirrored the PC evolution in various industries by shifting our focus toward the design and manufacture of PC-based industrial automation solutions.

Axiomtek Co., Ltd. established in 1990, has more than 60 distributor partners globally. Axiomtek offers Industrial PCs (IPC), Single Board Computers and System on Modules (slot CPU card, small form factor embedded boards & SoM), Fanless & Rugged Embedded System (eBOX, tBOX and rBOX), Touch Panel Computers (TPC), Medical PCs (MPC), Human Machine Interface (HMI), Digital Signage and Players (DS), Industrial Network and Network Appliances (NA).

As an associate member of the Intel® Internet of Things Solutions Alliance, [Axiomtek](#) continuously develops and delivers cutting edge solutions based on the latest Intel® platforms.