



Early mainframes had a single processor, which was known as the central processing unit (CPU). Today's IBM mainframes have a central processor complex (CPC), which may contain several different types of z/Architecture processors that can be used for slightly different purposes.



POWER7 is a family of superscalar multi-core microprocessors based on the Power ISA 2.06 instruction set architecture released in 2010 that succeeded the POWER6 and POWER6+. POWER7 was developed by IBM at several sites including IBM's Rochester, MN; Austin, TX; Essex Junction, VT; T. J. Watson Research Center, NY; Bromont, QC [1] and IBM ???



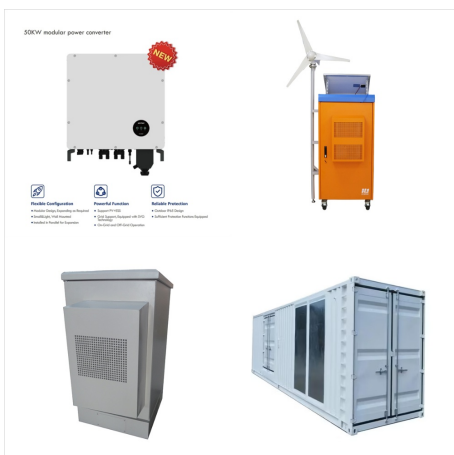
IBM Power System AC922 server (8335-GTH and 8335-GTX models) is the next generation of the IBM POWER(R) processor-based systems, which are designed for deep learning (DL) and artificial intelligence (AI), high-performance analytics, and high-performance computing (HPC). IBM Power System AC922 Technical Overview and Introduction, Red paper



The heart of the machine is the new IBM Telum processor. Announced at HotChips in August 2021, this 7 nm microprocessor contains 8 processor cores, with a speed clocked at 5.2 GHz. Each core is supported by a redesigned 32MB private level-2 cache. According to the IBM z16 technical introduction, "processor cache structure improvements and



IBM PowerPC 601 microprocessor. PowerPC (with the backronym Performance Optimization With Enhanced RISC ??? Performance Computing, sometimes abbreviated as PPC) is a reduced instruction set computer (RISC) instruction set architecture (ISA) created by the 1991 Apple???IBM???Motorola alliance, known as AIM. PowerPC, as an evolving instruction set, has ???



IBM(R) z Integrated Information Processor (zIIP) es un procesador dedicado, dise?ado para funcionar de forma as?ncrona con los procesadores generales de un mainframe para procesar nuevas cargas de trabajo; gestionar contenedores e interfaces de nube h?brida; facilitar la recuperaci?n del sistema; y ayudar con varios tipos de analytics, monitoreo de sistemas y ???



IBM Power E870 can be configured with up to 80 POWER8 cores and 8 TB of RAM. POWER8 is a family of superscalar multi-core microprocessors based on the Power ISA, announced in August 2013 at the Hot Chips conference. The designs are available for licensing under the OpenPOWER Foundation, which is the first time for such availability of IBM's highest-end processors.



Processor Value Unit (PVU) tables for RISC, z and x86 by Processor Brand (vendor, processor name, server Brand, Type and Model Number) and by the number of processors made available to the Program. IBM defines a processor, for the purpose of PVU-based licensing, to be each processor core on a chip (socket). A dual-core processor chip, for



The first IBM Quantum System Two, located in Yorktown Heights, New York, has begun operations with three IBM Heron processors and supporting control electronics. At IBM Quantum Summit 2023, "IBM Quantum Heron" was released as IBM's best performing quantum processor to date, with newly built architecture offering up to five-fold



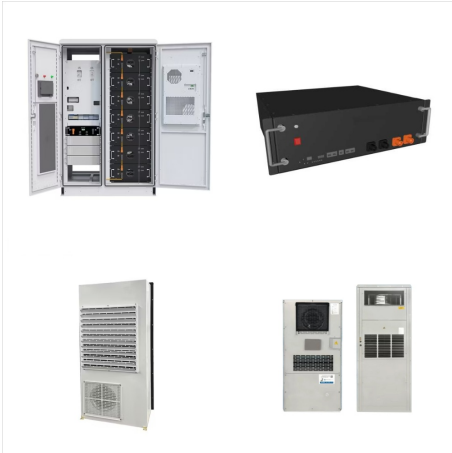
IBM unveils its latest quantum processor, IBM Osprey, with 433 qubits, the largest number of any IBM quantum processor. The company also announces new software, system, and security updates for quantum-centric ???



ARMONK, N.Y., Sept. 8, 2021 /PRNewswire/ -- IBM (NYSE: IBM) today announced the new IBM Power E1080 server, the first in a new family of servers based on the new IBM Power10 processor, designed specifically for hybrid ???



ARMONK, N.Y., Sept. 8, 2021 /PRNewswire/ -- IBM (NYSE: IBM) today announced the new IBM Power E1080 server, the first in a new family of servers based on the new IBM Power10 processor, designed specifically for hybrid cloud environments. The IBM Power10-equipped E1080 server is engineered to be one of the most secured server platforms and is designed to help ???



IBM Telum II Processor: Designed to power next-generation IBM Z systems, the new IBM chip features increased frequency, memory capacity, a 40 percent growth in cache and integrated AI accelerator core as well as a coherently attached Data Processing Unit (DPU) versus the first generation Telum chip. The new processor is expected to support



The IBM Telum processor, also revealed earlier this year, is similarly manufactured by Samsung using IBM's designs. IBM's legacy of semiconductor breakthroughs also includes the first implementation of 7 nm and 5 nm process technologies, High-k metal gate technology, channel SiGe transistors, single cell DRAM, the Dennard Scaling Laws



Pages in category "IBM microprocessors" The following 43 pages are in this category, out of 43 total. This list may not Cyclops64; E. Espresso (processor) G. Gekko (processor) I. IBM Condor; IBM Eagle; IBM Heron; IBM Osprey; IBM PALM processor; IBM ROMP; IBM Telum; M. OpenPOWER Microwatt; O. OPD Mini Processor; P. IBM Power microprocessors





IBM today revealed the next generation of its IBM POWER central processing unit (CPU) family: IBM POWER10. Designed to offer a platform to meet the unique needs of enterprise hybrid cloud computing, the IBM POWER10 processor uses a design focused on energy efficiency and performance in a 7nm form factor with an expected improvement of up to 3x greater ???



POWER9 is a family of superscalar, multithreading, multi-core microprocessors produced by IBM, based on the Power ISA was announced in August 2016. [2] The POWER9-based processors are being manufactured using a 14 nm FinFET process, [3] in 12- and 24-core versions, for scale out and scale up applications, [3] and possibly other variations, since the POWER9 ???



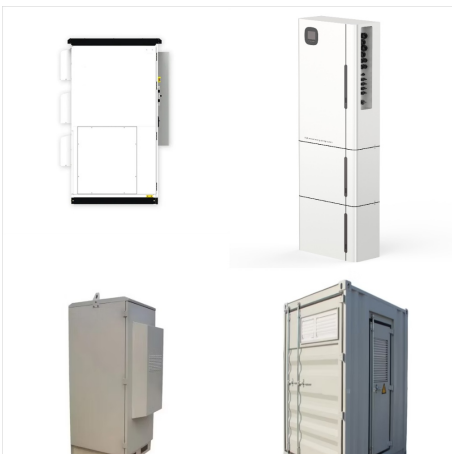
IBM Debuts Next-Generation Quantum Processor & IBM Quantum System Two, Extends Roadmap to Advance Era of Quantum Utility. Breaking the 1,000-qubit barrier with Condor. We have introduced IBM Condor, a 1,121 superconducting qubit quantum processor based on our cross-resonance gate technology. Condor pushes the limits of scale and yield in ???



And Moore's Law, the theory that the density of circuits in processors would double every two years, has slowed. But new research out of IBM Research's lab in Almaden, California, nearly two decades in the making, ???



Our first commercialized 7 nm processor, based on IBM Research's 2015 breakthrough, will debut later this year in IBM POWER10 processor, for example. Looking ahead, our leadership in semiconductor innovation could allow cloud providers or other large-scale datacenter operators to reduce their energy costs and carbon footprint by using fewer



And Moore's Law, the theory that the density of circuits in processors would double every two years, has slowed. But new research out of IBM Research's lab in Almaden, California, nearly two decades in the making, has the potential to drastically shift how we can efficiently scale up powerful AI hardware systems.



Telum is IBM's first processor that contains on-chip acceleration for AI inferencing while a transaction is taking place. Three years in development, the breakthrough of this new on-chip hardware acceleration is designed to help customers achieve business insights at scale across banking, finance, trading, insurance applications and customer interactions.



ALBANY, N.Y., May 6, 2021 /PRNewswire/ -- IBM (NYSE: IBM) today unveiled a breakthrough in semiconductor design and process with the development of the world's first chip announced with 2 nanometer (nm) nanosheet technology. Semiconductors play critical roles in everything from computing, to appliances, to communication devices, transportation systems, and critical ???



At 127 qubits, the Eagle processor family incorporates more scalable packaging technologies than previous generations. In particular, signals pass through multiple chip layers so as to allow for high-density I/O without sacrificing performance. See IBM Quantum breaks the 100???qubit processor barrier for more about the Eagle processor family.