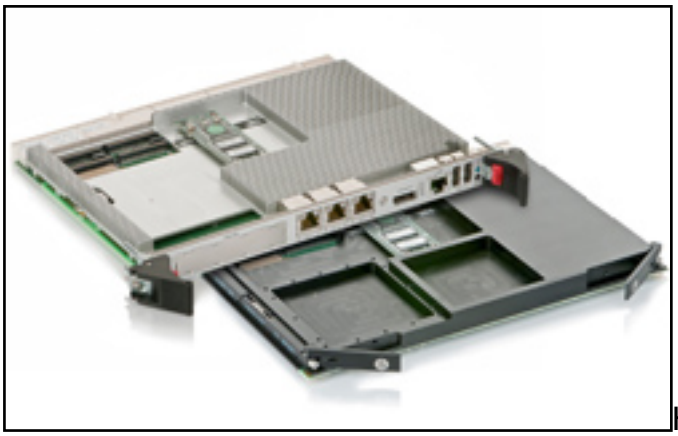
cPCI Boards with 2nd-generation Intel Core i7 Processors Suit Harsh Environments



Kontron introduced two rugged 6U CompactPCI PICMG 2.16 compliant processor boards with 2nd generation Intel Core i7 processor technology. The boards are available in two ruggedization levels, the rugged air-cooled Kontron CP6003-RA for installations that require versatile and comprehensive I/O capabilities and the rugged conduction cooled Kontron CP6003-RC, for deployment in extremely harsh environments such as military and aerospace systems. Equipped with multicore CPU's, including the 2.10 GHz Quad-Core Intel Core i7-2715QE processor, the Kontron CP6003-RA/RC boards speed up vector operations required for imaging and floating-point applications via Advanced Vector Extension (Intel AVX) and process single-threaded tasks through Intel Turbo Boost technology 2.0. This allows for a clock speed of up to 3.0 GHz without the need to oversize the entire system for peak loads. Up to 16 GB of soldered DDR3 1333 ECC memory ensures data accuracy for demanding and safety-critical applications like radar or sonar systems. A rugged NAND Flash with up to 32 GB can be integrated via a SATA interface to host complete operating systems or application code, which substantially increases overall system speed and availability.

The Kontron 6U CompactPCI processor boards CP6003-RA/RC support 64-bit/66 MHz PCI or PCI-X on the hot swap CompactPCI interface. Safety and security features via an optional Trusted Platform Module (TPM) 1.2, two redundant firmware hubs (failover) and Intelligent Platform Management Interface (IPMI) are supported as well. The XMC (via PCI Express x8) or PMC socket for mezzanine cards ensure plenty of room for application specific expansions, like the dual 10 Gigabit Ethernet network interface card Kontron XMC401. The RoHS compliant and lead free CP6003-RA/RC can be used in both, a system or peripheral slot.

Kontron
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