



Product Information

PC2-LIMBO • *CompactPCI*[®] PlusIO Intel[®] Atom[™] Processor E6xx Series • Low Power CPU Card

Suitable for Classic CompactPCI[®] and PICMG 2.30 CompactPCI[®] PlusIO Systems

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*The PC2-LIMBO is a low power 4HP/3U **CompactPCI**[®] CPU board, equipped with an Intel[®] Atom[™] E6xx series processor, which is scalable from 0.6GHz up to 1.6GHz clock, and available for the industrial operating temperature range (-40°C to +85°C). The PC2-LIMBO front panel is provided with two Gigabit Ethernet jacks, two USB receptacles, and either the DVI connector for attachment of a high resolution digital display, or alternatively the classic style VGA connector.*

The PC2-LIMBO is equipped with up to 2GB soldered RAM for rugged applications. An on-board CFast[™] host connector is provided for attachment of a SATA SSD module. In addition, a microSD card holder can accommodate a low cost industrial microSDHC Flash card (speed class 6, up to 32GB). While maintaining the 4HP profile of the PC2-LIMBO, the optionally available C42-SATA expansion module is equipped with a 1.8-inch microSATA solid state drive.



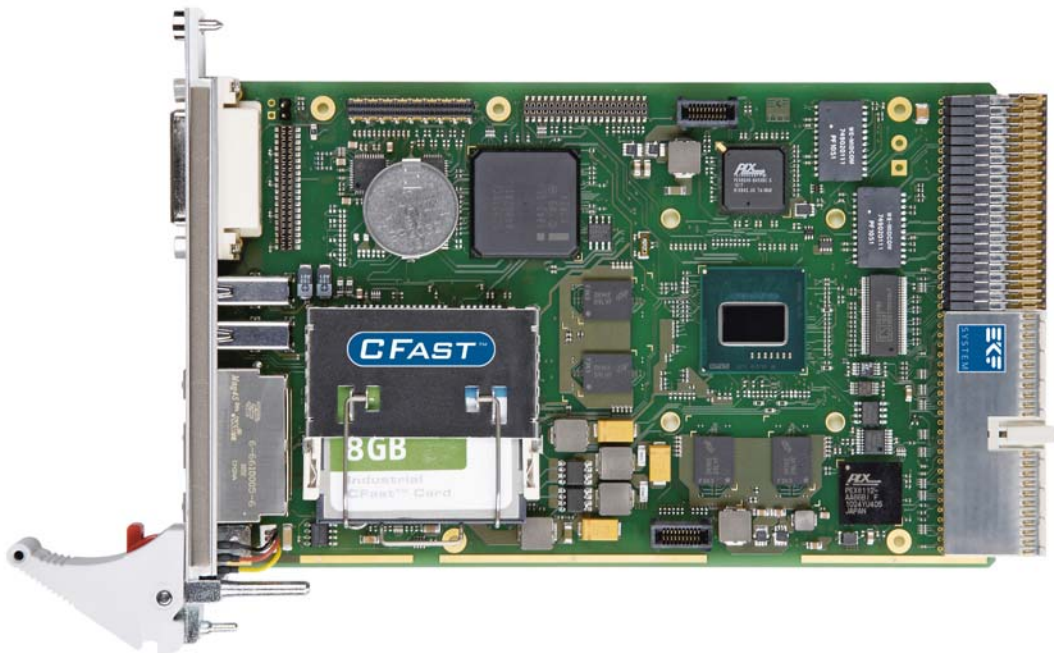
PC2-LIMBO (similar picture)

Feature Summary PC2-LIMBO

- ▶ CompactPCI® System Slot Controller
- ▶ CompactPCI® PlusIO Rear I/O According to PICMG® 2.30
- ▶ Hybrid Systems Option (Dual Backplane CompactPCI® & CompactPCI® Serial)
- ▶ Based on the Intel® Queens Bay Platform (Tunnel Creek CPU, Topcliff PCH)
- ▶ Intel® Atom™ Series E6xx Mobile Processor, Power Optimized CPU, Integrated Graphics Engine
- ▶ E620(T) Processor 0.6GHz 3.3W TDP (T = -40°C to +85°C)
- ▶ E640(T) Processor 1.0GHz 3.6W TDP (T = -40°C to +85°C)
- ▶ E660(T) Processor 1.3GHz 3.6W TDP (T = -40°C to +85°C)
- ▶ E680(T) Processor 1.6GHz 4.5W TDP (T = -40°C to +85°C)
- ▶ DDR2 Soldered Memory up to 2GB
- ▶ Dual Port Graphics Controller (Front Panel: DVI or VGA Connector Option)
- ▶ Max Resolution 1920x1080 (DVI), 1280x768 (VGA)
- ▶ Intel® EG20T (Topcliff) Platform Controller Hub (PCH)
- ▶ Dual Gigabit Ethernet Controllers (Individually BIOS Controlled either F/P or J2 RIO)
- ▶ Two Native SATA Channels 3Gbps
- ▶ Four Additional SATA Channels 3Gbps, Mezzanine and/or Rear I/O (JMicron Controllers)
- ▶ Twelve USB 2.0 Channels
- ▶ CFast™ Card Host Connector on-Board (SATA 3Gbps I/F)
- ▶ microSD Host Connector (up to 32GB Class 6 Speed microSDHC Card Support)
- ▶ SATA 1.8-Inch Solid State Drive (SSD) with C42-SATA Mezzanine Module Option (4HP Assembly Height Maintained)
- ▶ CompactFlash and/or USB SSD with C40-SCFA Mezzanine Module Option (4HP Maintained)
- ▶ On-Board PCI Express® Packet Switch (4 Lanes available for Rear I/O and CPCI Serial Backplane Respectively, another 1 Lane for Mezzanine Side Card)
- ▶ Legacy I/O Expansion Connectors (CAN2.0B, HD Audio, LPC, PS/2, UART)
- ▶ High Speed I/O Expansion Connectors (LVDS, PCI Express®, SATA, USB)
- ▶ Variety of Mezzanine Expansion Boards (Side Cards) Available with and w/o PCIe
- ▶ Most Mezzanines Optionally Equipped with 2.5-Inch Single- or Dual-Drive
- ▶ Rear I/O Transition Module Option (e.g. PR1-RIO)
- ▶ +5V Only Design, on-Board 3.3V Regulator Can Supply CPCI Peripheral Slot Cards
- ▶ UEFI Phoenix BIOS with ACPI
- ▶ Long Term Availability
- ▶ Coating, Sealing, Underfilling on Request
- ▶ RoHS compliant



PC2-LIMBO



PC2-LIMBO (Top View)

CompactPCI® PlusIO (PICMG 2.30) is a new standard for rear I/O across J2, specified by the PICMG®. High speed signal lines (PCI Express®, SATA, Gigabit Ethernet and USB) are passed from the PC2-LIMBO through the special UHM connector to the backplane, for usage either on a PlusIO rear I/O transition module, or CompactPCI® Serial card slots.

CompactPCI® Serial (PICMG CPCIS.0) defines a completely new card slot, based on PCI Express®, SATA, Gigabit Ethernet and USB serial data lines. On a hybrid backplane, both card styles can reside, CompactPCI® and CompactPCI® Serial, with the PC2-LIMBO in the middle as system slot controller for both backplane segments.



PR1-RIO • Rear I/O Transition Module



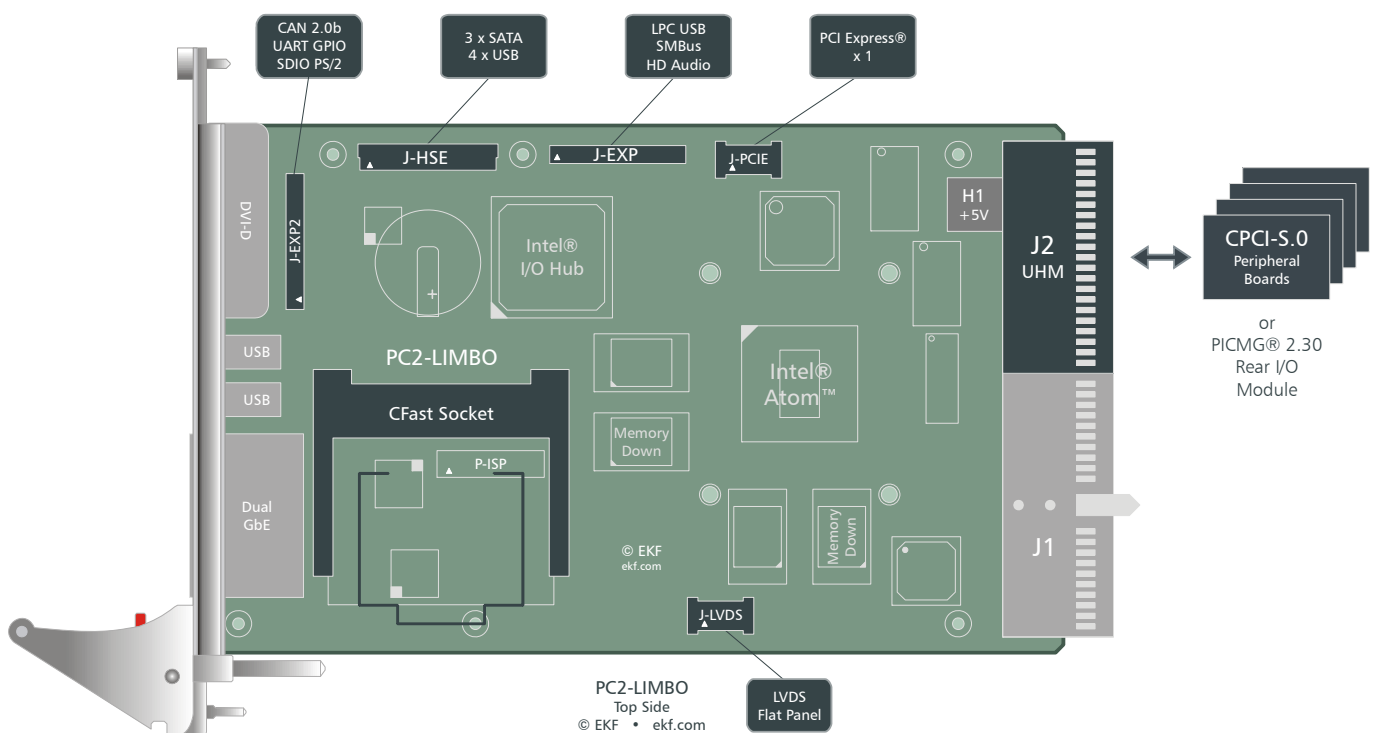
Hybrid Backplane CPCI & CPCI Serial

Related Documents CompactPCI® PlusIO & CompactPCI® Serial

CompactPCI® PlusIO & Serial Overview	www.ekf.com/s/cpci_serial_overview.pdf
CompactPCI® PlusIO Home	www.ekf.com/p/plus.html
CompactPCI® Serial Home	www.ekf.com/s/serial.html

The PC2-LIMBO is equipped with a set of local expansion interface connectors, which can be optionally used to attach a mezzanine side board. A variety of expansion cards is available, e.g. providing legacy I/O and additional PCI Express based I/O circuitry such as SATA and Gigabit Ethernet, or a secondary video output. Most mezzanine side cards can accommodate in addition a 2.5-inch drive.

Typically, the PC2-LIMBO and the related side card would come as a readily assembled 8HP unit. As an alternate, Flash based mezzanine storage modules are available that fit on the PC2-LIMBO while maintaining the 4HP profile. The C42-SATA module e.g. is equipped with a very fast 1.8-inch SATA Solid State Drive (SSD), which is suitable for installation of any popular operating system.



PC2-LIMBO • Mezzanine Board Connectors

Related Documents Mezzanine Modules and Side Cards	
C40 ... C45 Series Mezzanine Storage Modules	www.ekf.com/c/ccpu/c4x_mezz_ovw.pdf
Mezzanine Side Cards Overview	www.ekf.com/c/ccpu/mezz_ovw.pdf
The EKF Mezzanine Module Concept	www.ekf.com/c/ccpu/cpci_mezzanine_evolution.pdf



C40-CFA • CompactFlash Mezzanine Module



C41-CFAST • Secondary CFAST Card Mezzanine Module



C42-SATA • Solid State Drive Mezzanine Module



C43-SATA • Internal Connectors Mezzanine Module

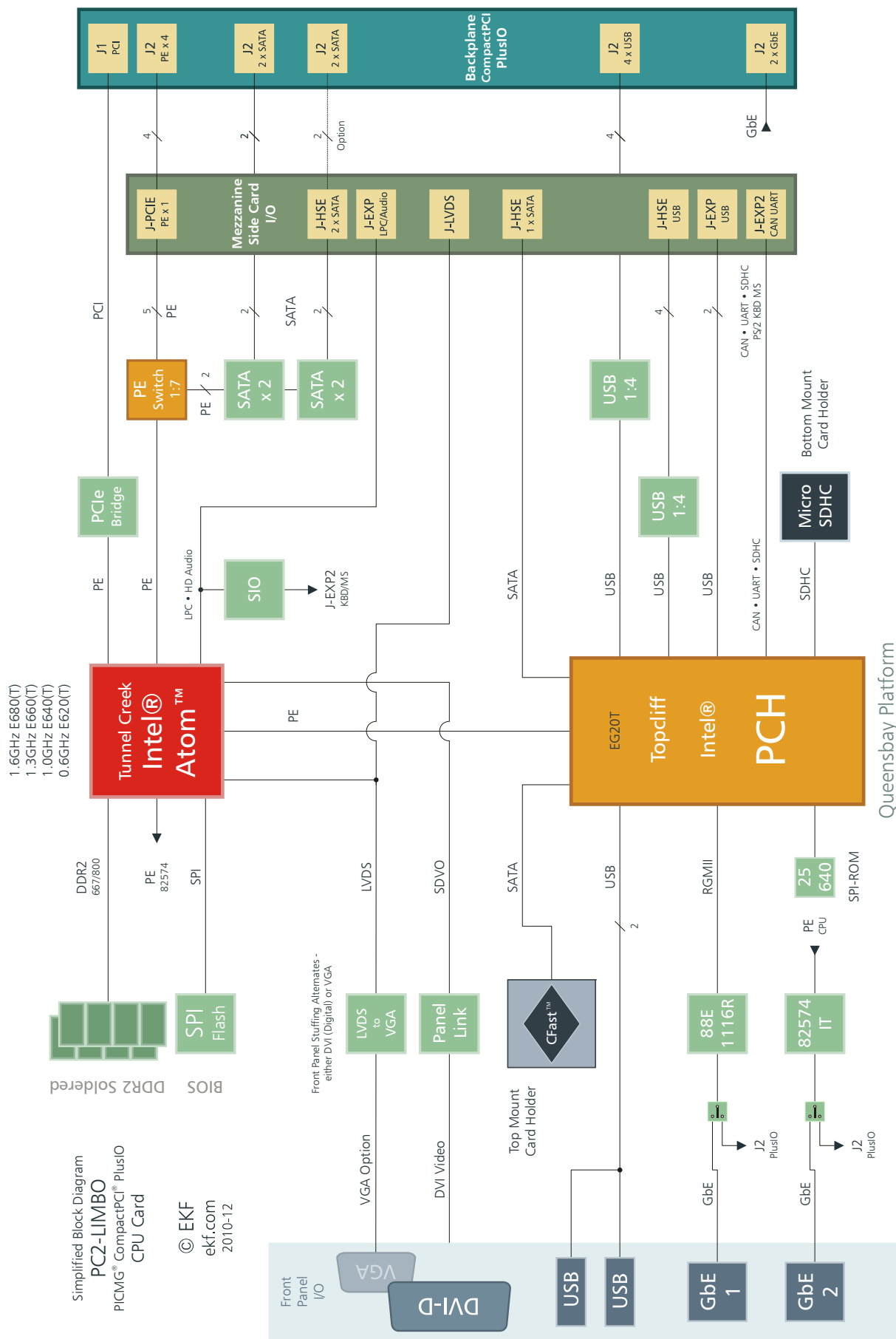


C44-SATA • 2.5-Inch HDD/SSD Carrier Side Card (8HP F/P Width)

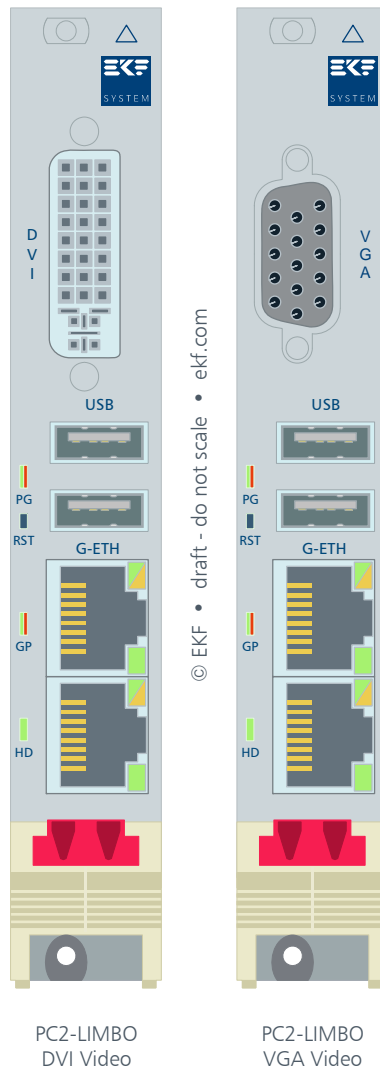


C45-SATA • Front Panel Loading SSD Mezzanine Module (8HP F/P Width)

Block Diagram



Front Panel Options



Ordering Information

For popular PC2-LIMBO SKUs please refer to www.ekf.com/liste/liste_21.html#PC2
For popular Mezzanine Side Cards please refer to www.ekf.com/liste/liste_20.html#C40



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