



## CompactPCI<sup>®</sup> Serial

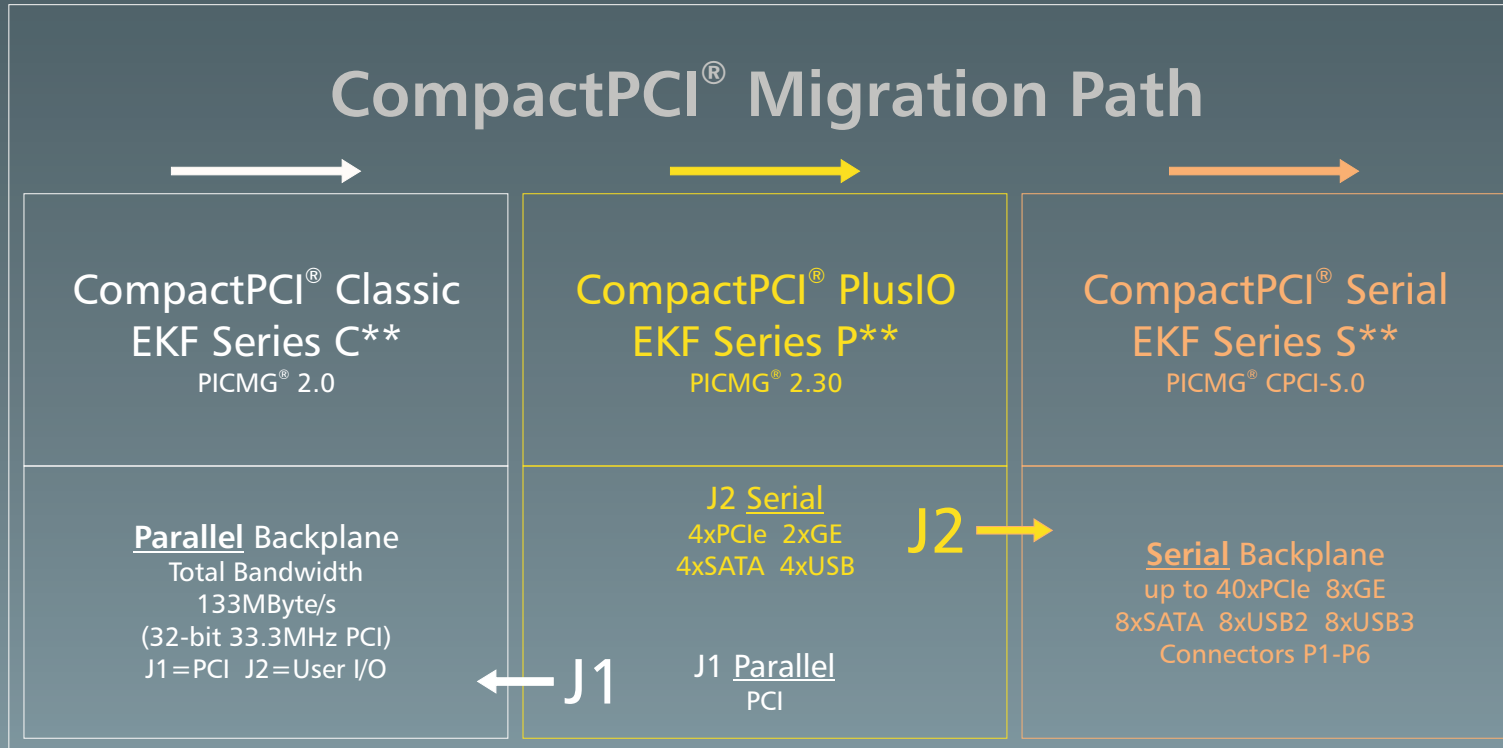
CompactPCI<sup>®</sup> PlusIO (PICMG<sup>®</sup> 2.30) • CompactPCI<sup>®</sup> Serial (PICMG<sup>®</sup> CPCI-S.0)

## Conceptual Overview

2010-10  
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# CompactPCI® Goes Serial

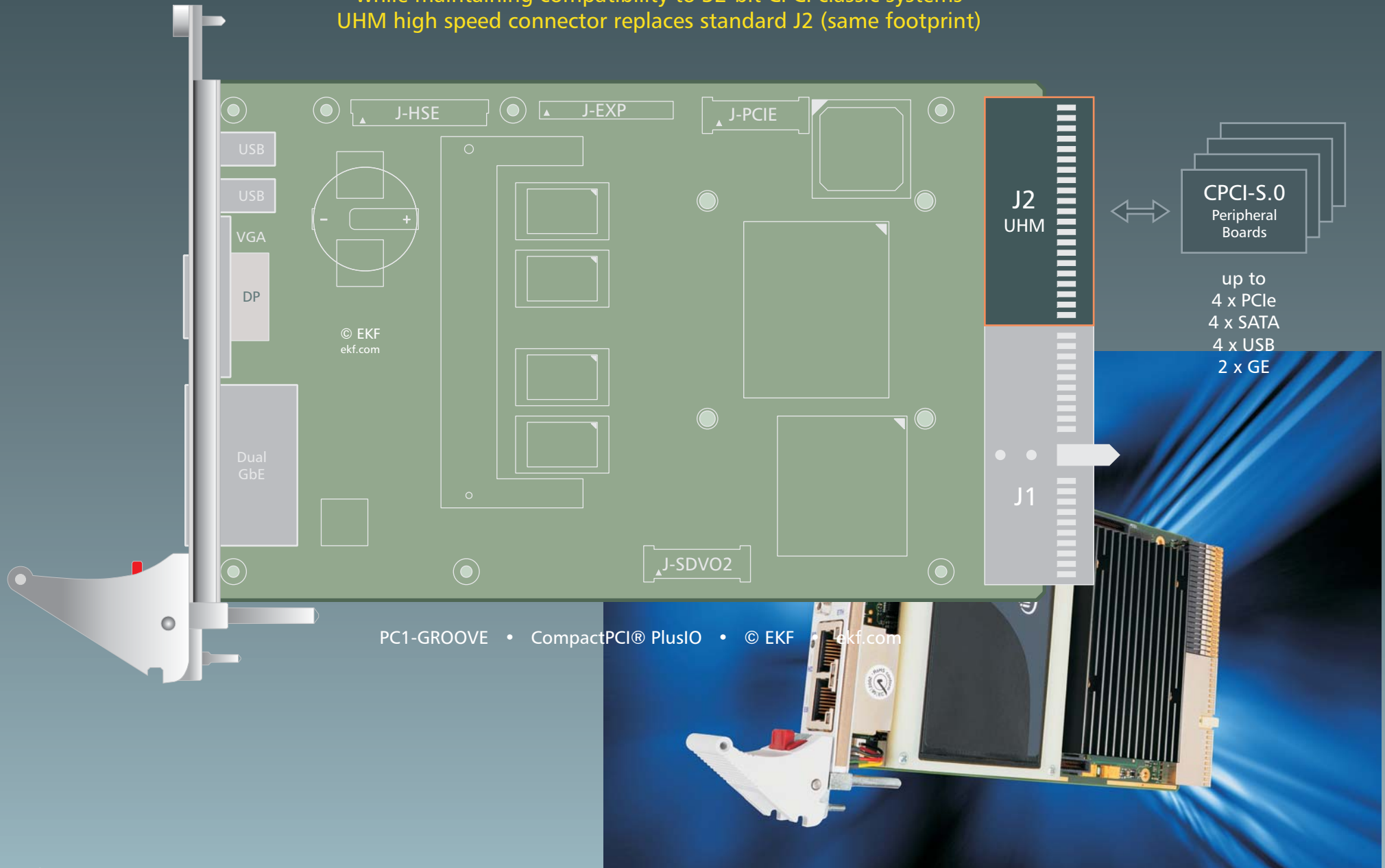
For a transitional period, we will see heterogeneous systems with a CompactPCI® PlusIO CPU card, or a CompactPCI® Serial system slot controller side board. Backplanes can be either hybrid (common single backplane) or independent (dual-backplane).



J2 is a High Speed Signal UHM Connector  
Usage for RIO or CPCI Serial Backplane

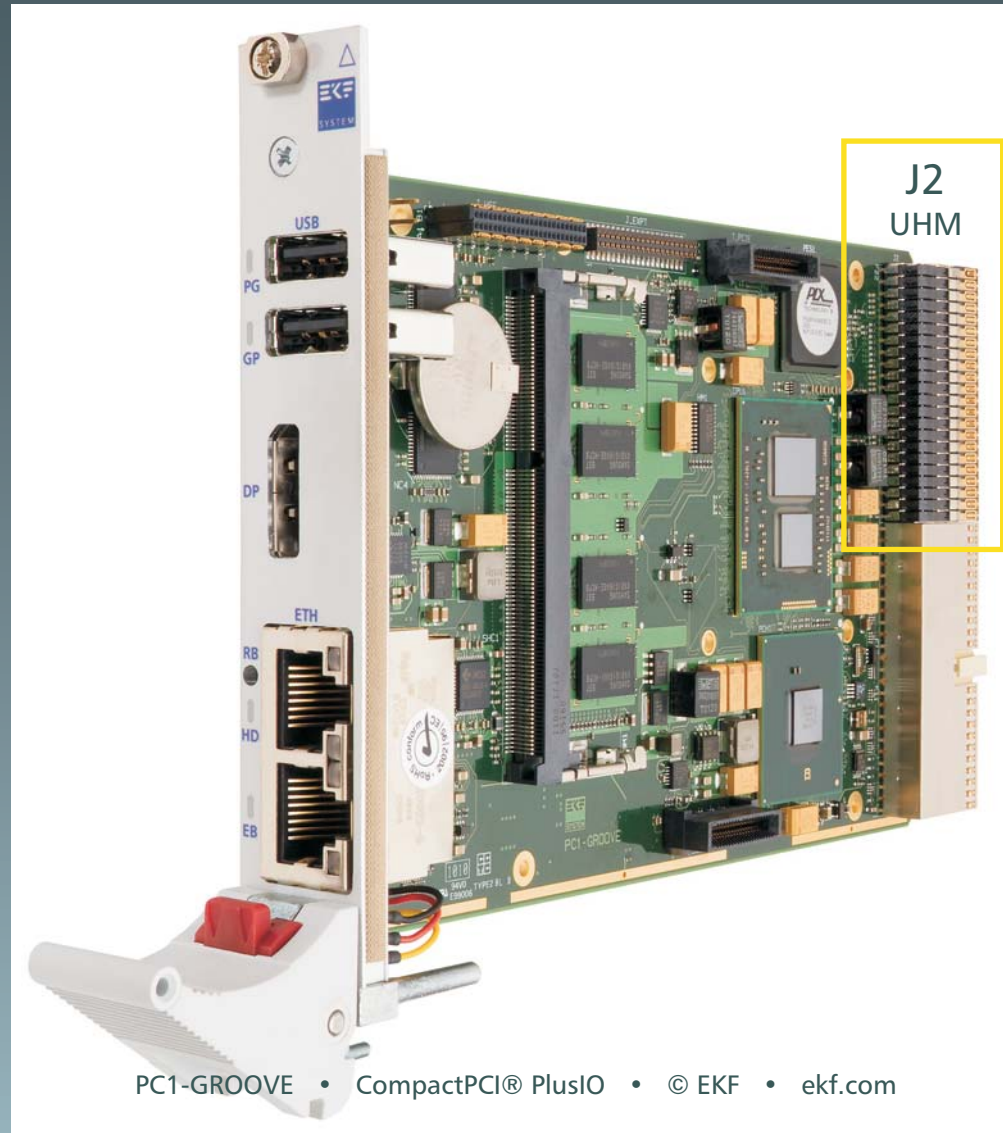
# CompactPCI® PlusIO CPU Card

A CompactPCI® PlusIO CPU card opens the migration path to CompactPCI® Serial while maintaining compatibility to 32-bit CPCI classic systems  
UHM high speed connector replaces standard J2 (same footprint)



# CompactPCI® PlusIO CPU Card

The CompactPCI® PlusIO connector J2 is a high speed signal receptacle (same dimensions as classic J2)



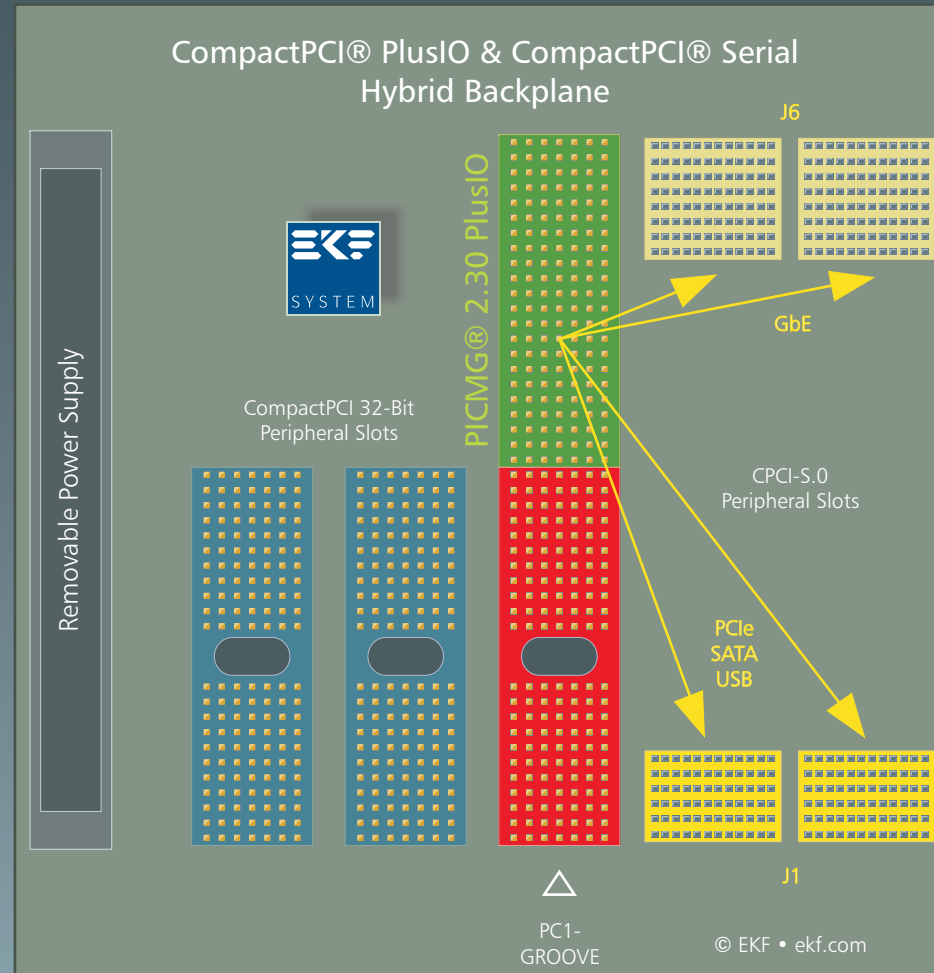
# CompactPCI® PlusIO Rear I/O Transition Module

The connector J2 allows for high speed rear I/O according to PICMG® CPCI 2.30 PlusIO



# CompactPCI® PlusIO & CompactPCI® Serial Hybrid Backplane

New defined CPCI PlusIO system slot J2/P2 delivers high speed serial I/O to CPCI Serial peripheral slots: PCIe SATA USB GbE

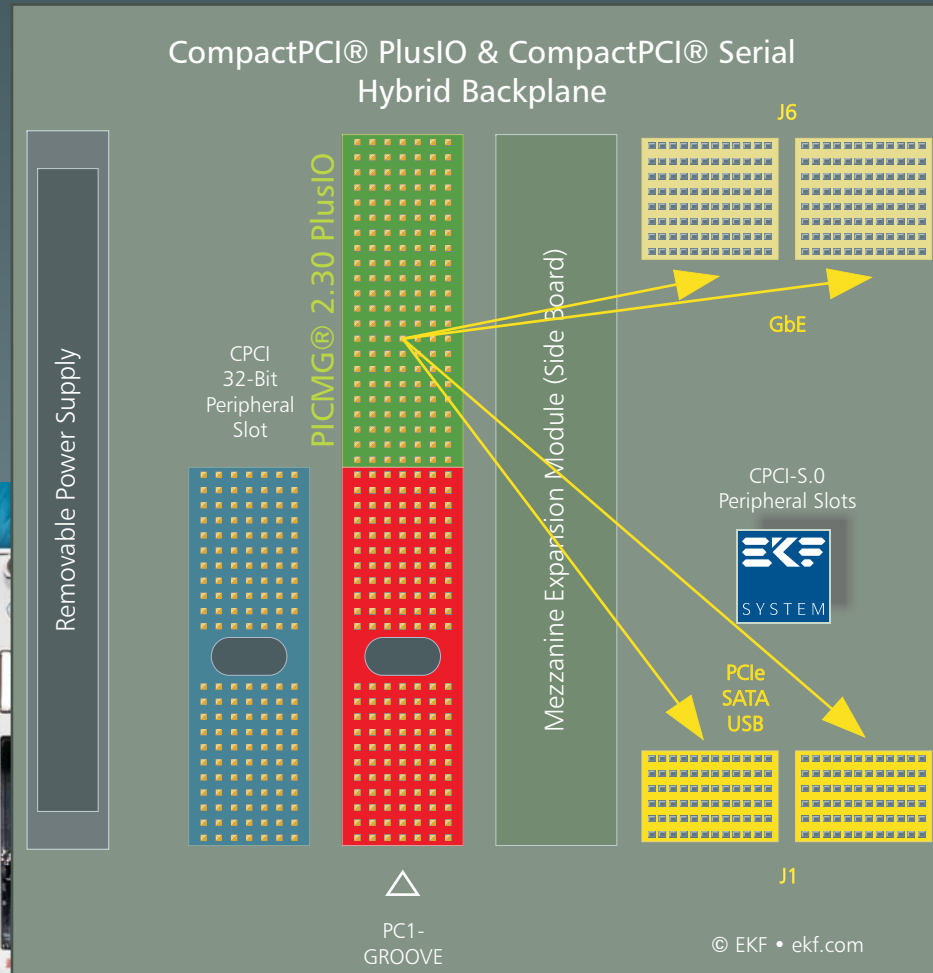


BlueLine Hybrid System



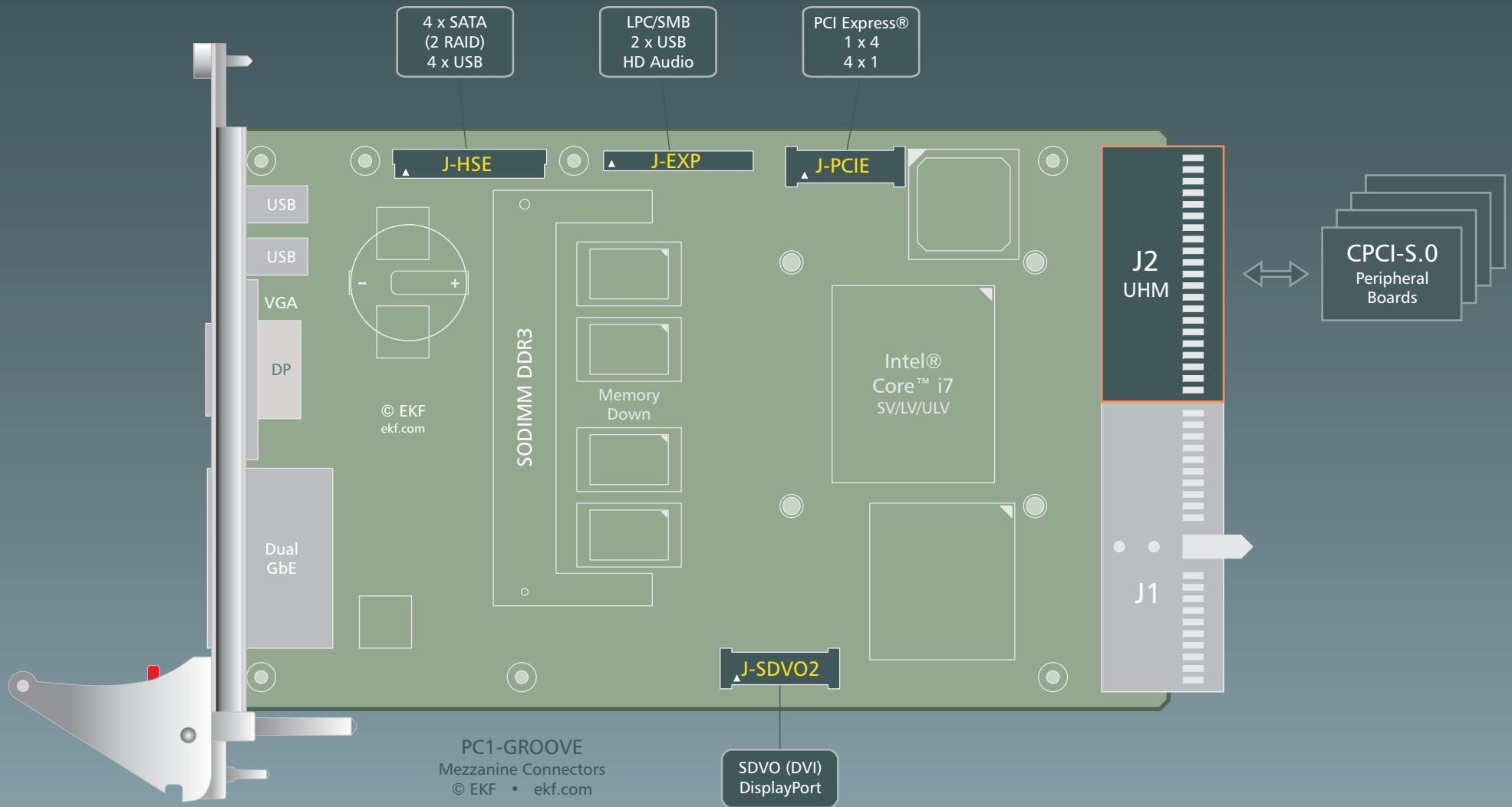
# CompactPCI® PlusIO & CompactPCI® Serial Hybrid Backplane

This backplane version offers empty space right to the CPU board for a mezzanine side card



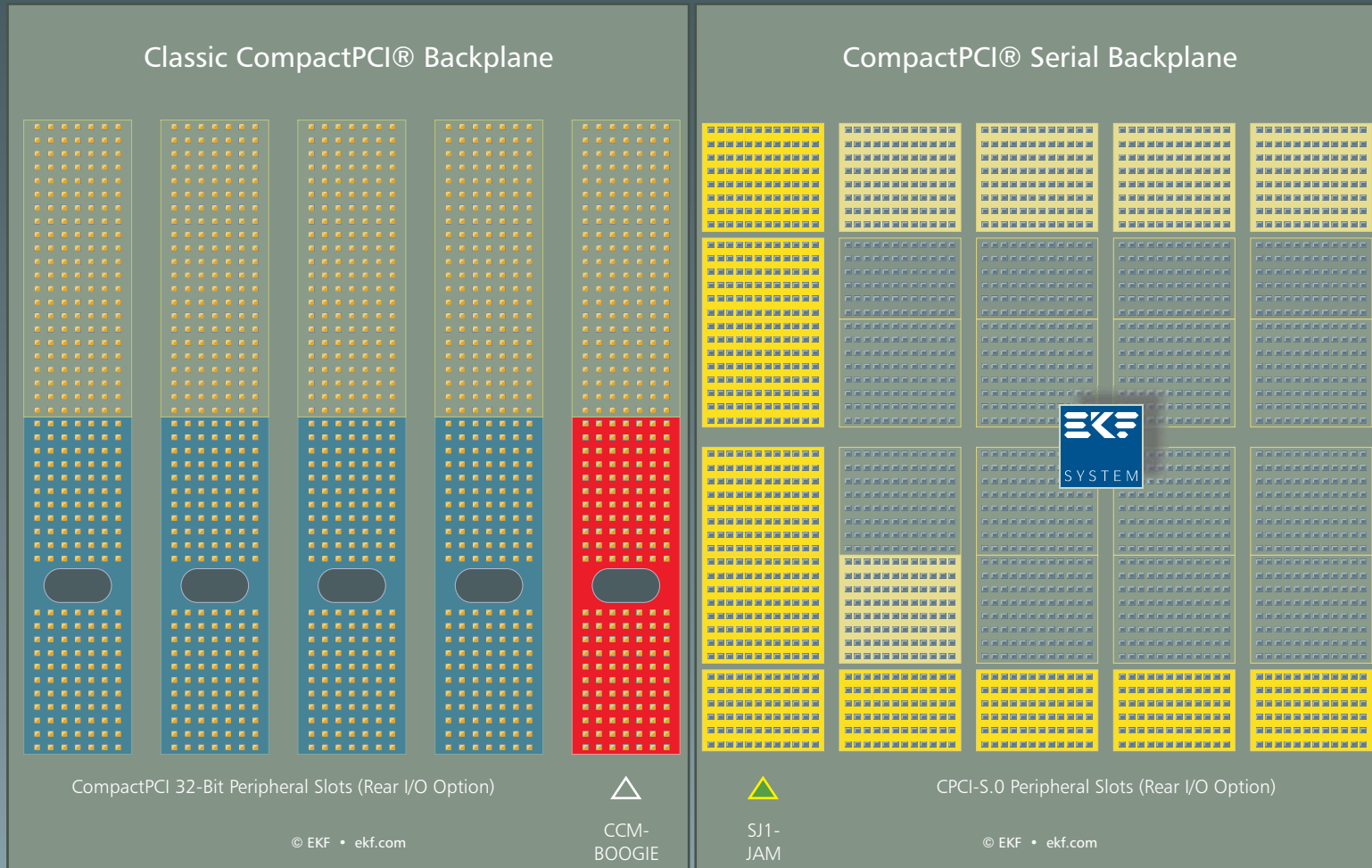
BlueLine Hybrid System (with CPU Side Board Spare Slot)

Side board I/O is maintained in addition to CompactPCI® PlusIO with a suitable backplane



# CompactPCI® Classic & CompactPCI® Serial Dual-Backplane

This backplane version is suitable for a CPCI Classic CPU card with CCJ-JAM side board which acts as CPCI Serial system slot controller

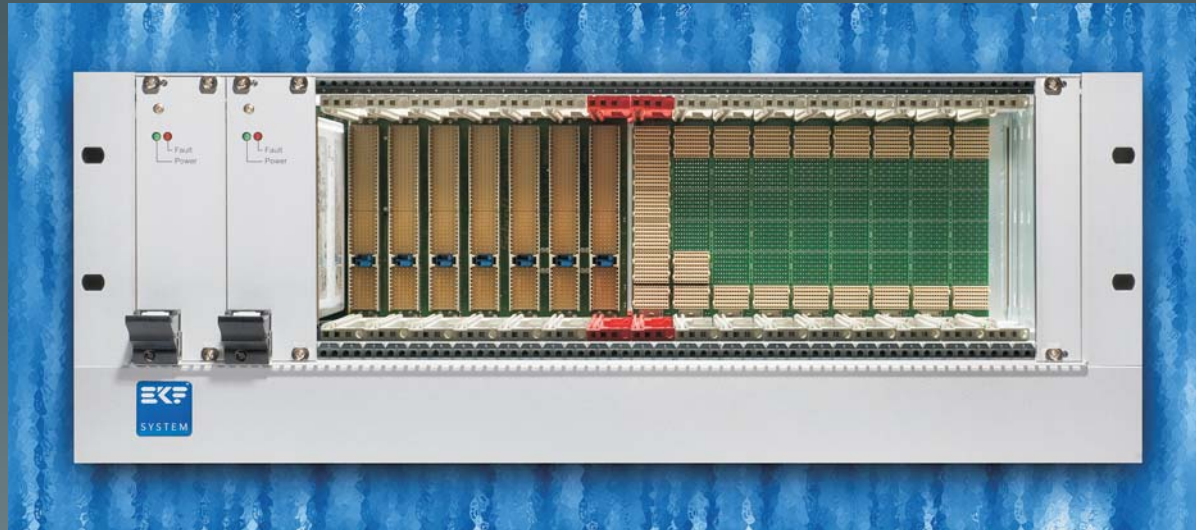


Dual-Backplane Hybrid System (CPCI-S System Slot by Side Board SJ1-JAM)

System slots aligned side by side

# CompactPCI® Classic & CompactPCI® Serial Dual-Backplane

Racks with hybrid backplane suitable for a CPCI Classic CPU card with CCJ-JAM side board which acts as CPCI Serial system slot controller



System slots aligned side by side

Dual-Backplane Hybrid System (CPCI-S System Slot by Side Board SJ1-JAM)



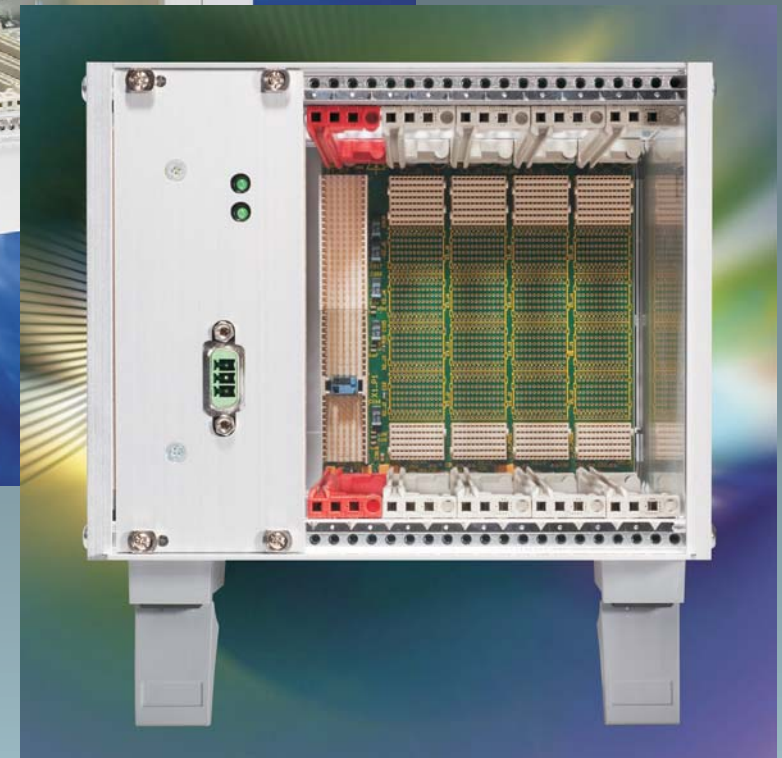
# CompactPCI® Classic & CompactPCI® Serial Hybrid Systems

Hybrid systems comprise the best of both worlds



# CompactPCI® Classic & CompactPCI® Serial Hybrid Systems

Hybrid systems comprise the best of both worlds



# CompactPCI® Serial Connectors

P1 is the main connector (PCIe - SATA - USB) - other connectors optional on peripheral cards  
 P2 - P5 for rear I/O option on peripheral card slots • P6 for GbE mesh option



# CompactPCI® Serial Peripheral Card

Sample application - simple SATA storage module - note that only P1 is required



SD1-SATA • CompactPCI® Serial • © EKF • ekf.com

# CompactPCI® Serial Peripheral Card

Sample application - ruggedized systems SATA SSD storage module



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# CompactPCI® Serial Peripheral Card

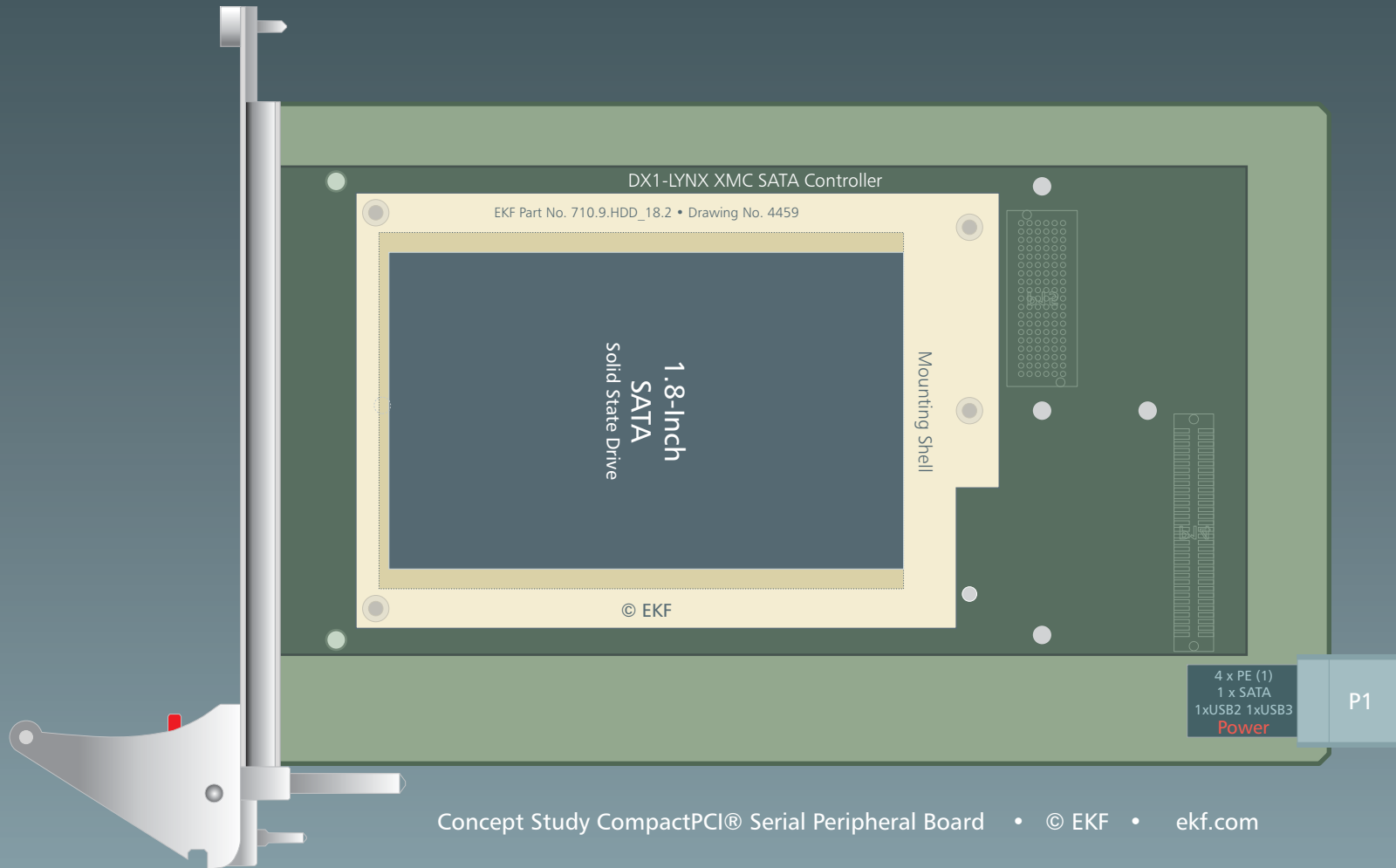
Sample Application - ExpressCard™ and 1.8-Inch SATA SSD



SP1-BANJO • CompactPCI® Serial • © EKF • [ekf.com](http://ekf.com)

# CompactPCI® Serial Peripheral Card

Sample application - PMC/XMC carrier board



Concept Study CompactPCI® Serial Peripheral Board • © EKF • ekf.com

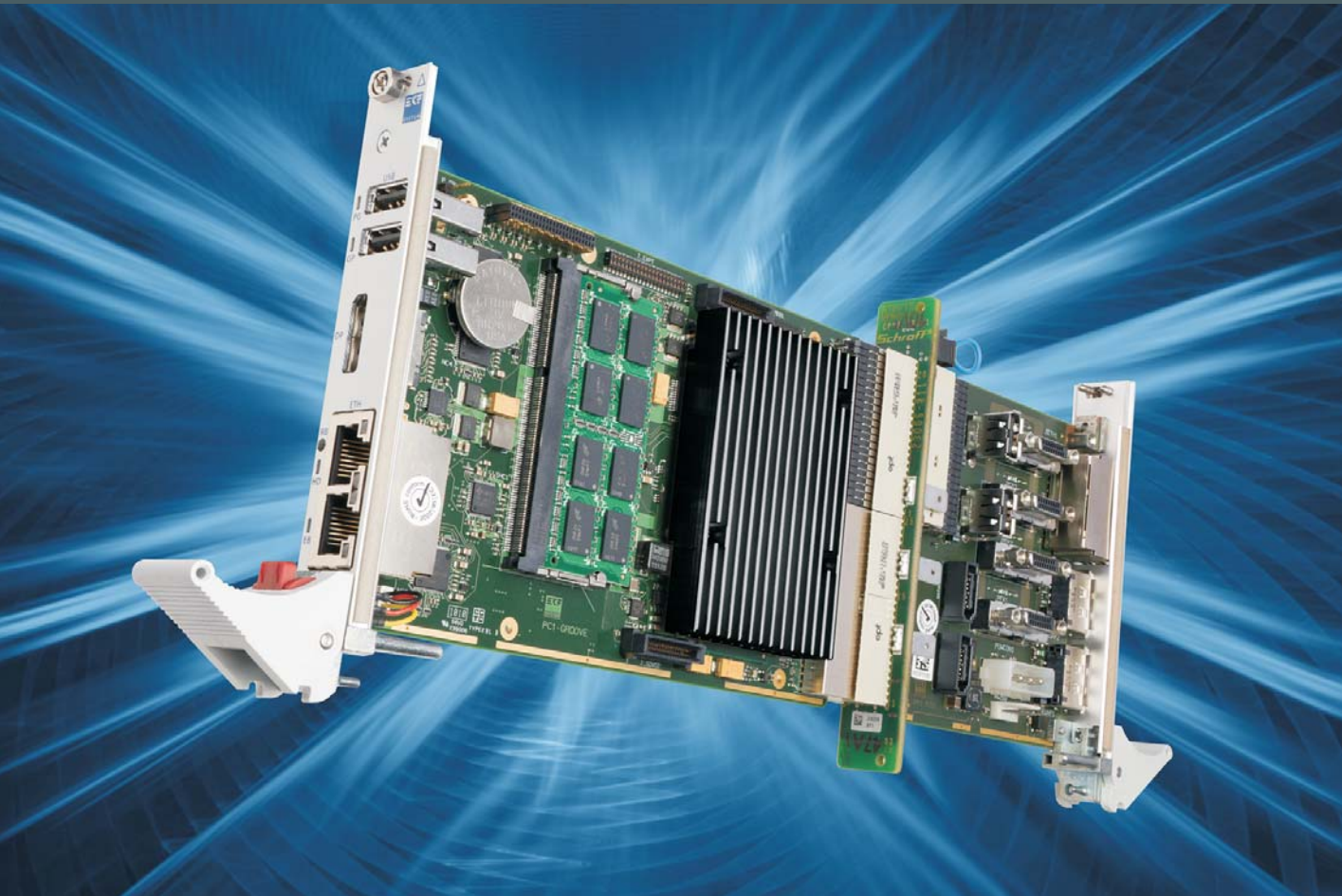
## CompactPCI® Serial System Slot Controller

This solution is suitable for classic CPCI CPU Cards - a side card acts as the CompactPCI® Serial system slot controller



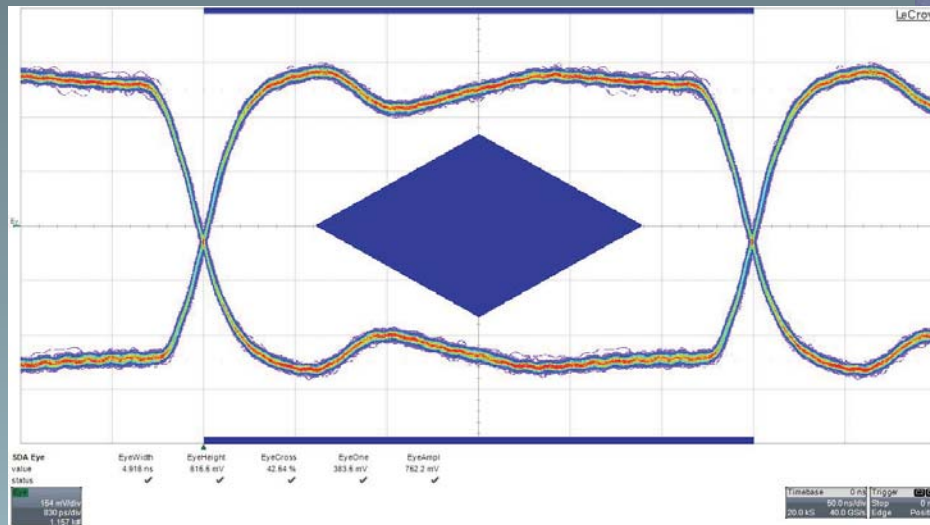
# CompactPCI® PlusIO Rear I/O

Profit from standardized high speed rear I/O



The EKF CompactPCI® Serial Concept

# High Speed Design by Competence: EKF



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