

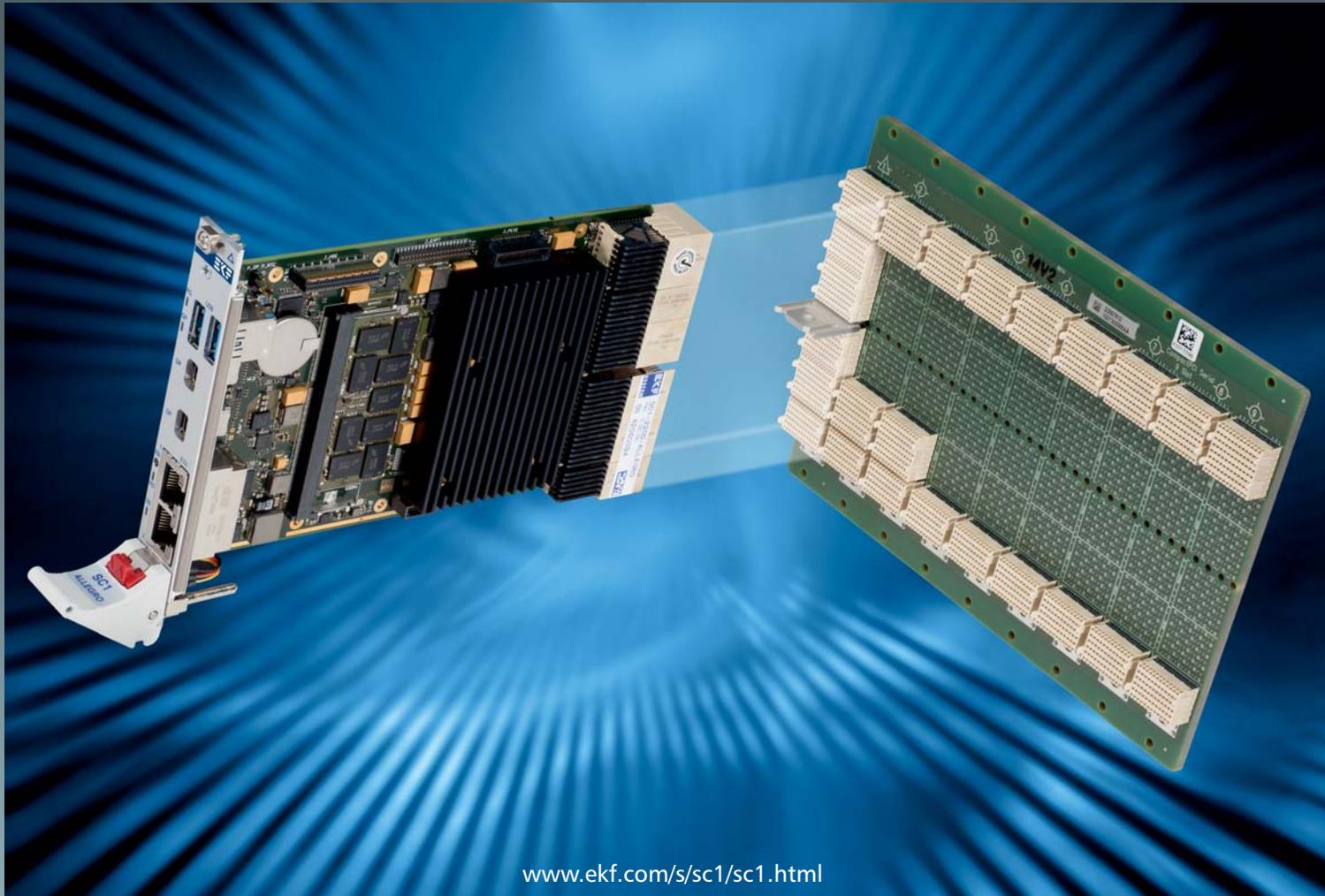
CompactPCI[®] Serial...



... *the Smart Solution*

CompactPCI® Serial Systems

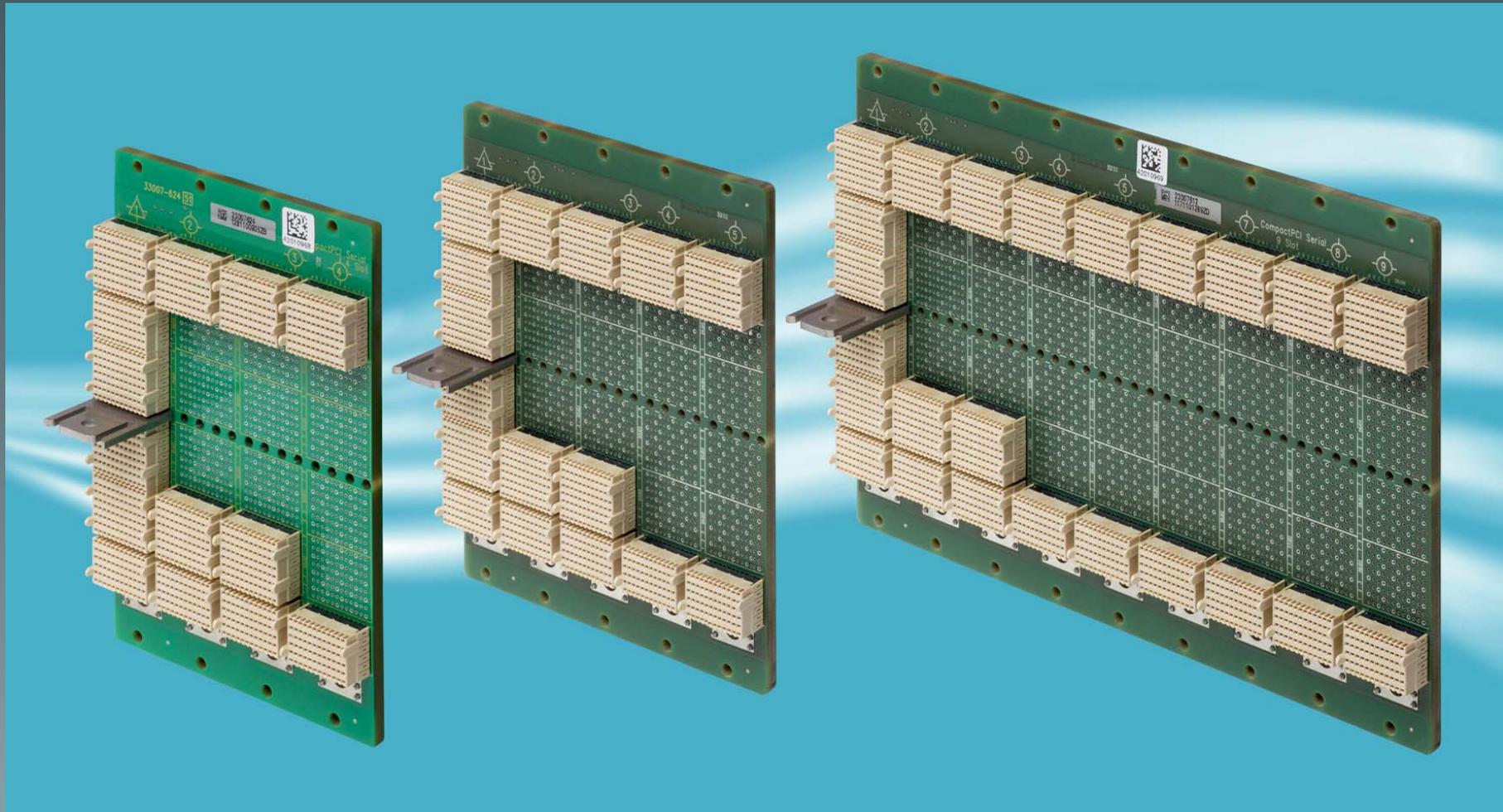
Designed for performance • 40 x PCI® Express • 8 x Gigabit Ethernet • 8 x SATA • 8 x USB3



www.ekf.com/s/sc1/sc1.html

CompactPCI® Serial Systems

CPCI Serial backplanes for optimum throughput

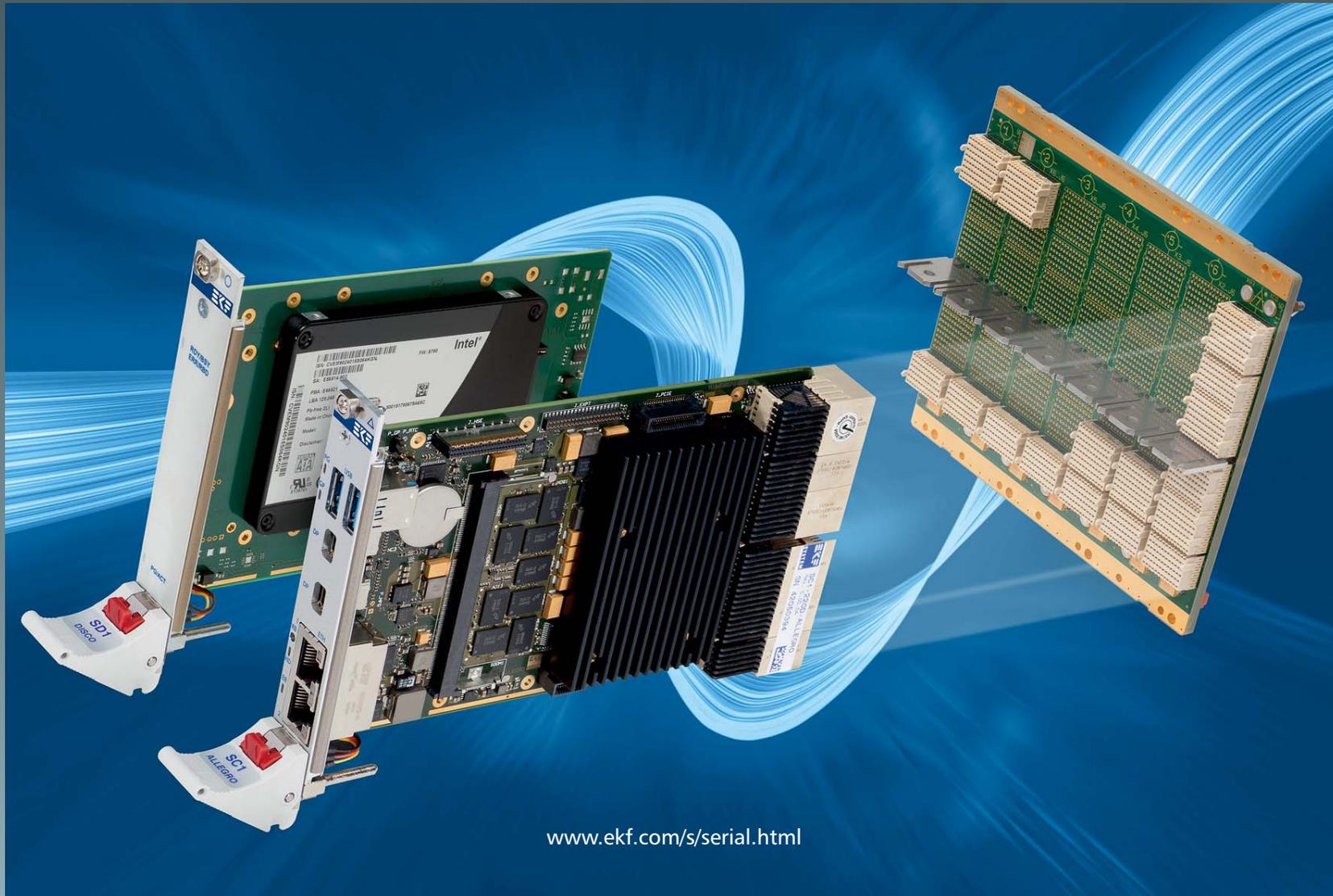


Sample Backplanes CompactPCI® Serial

The CompactPCI® Serial system slot is located either most left or most right

CompactPCI® Serial Systems

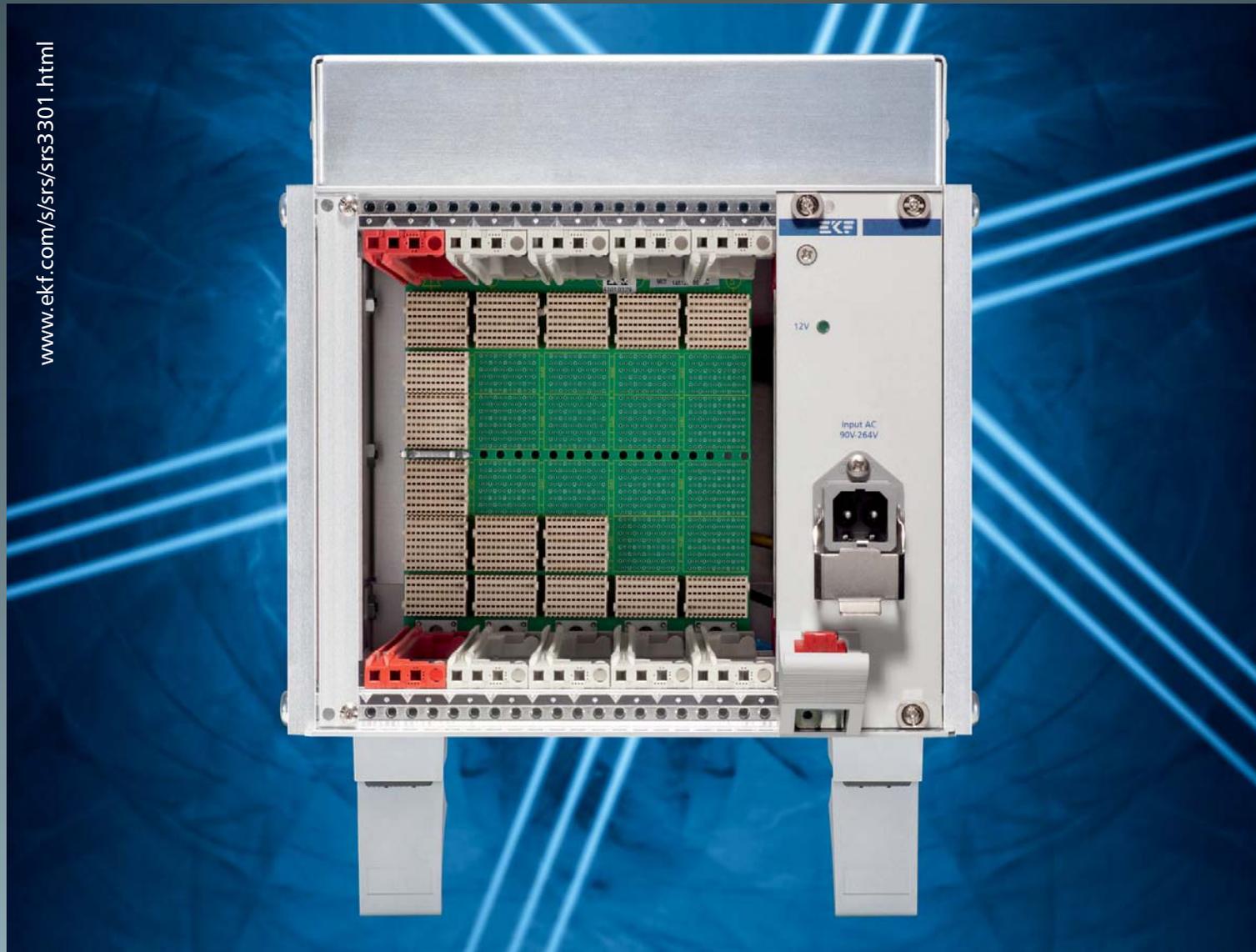
Reverse order backplanes (system slot right aligned) for CPU cards with 4HP to 12HP front panel



www.ekf.com/s/serial.html

CompactPCI® Serial Systems

CPCI Serial BlueLine series - small and economic



www.ekf.com/srs/srs3301.html

CompactPCI® Serial - the Smart Solution

SRS-3301-BLUELINE CompactPCI® Serial

CompactPCI® Serial Systems

CPCI Serial rugged system racks

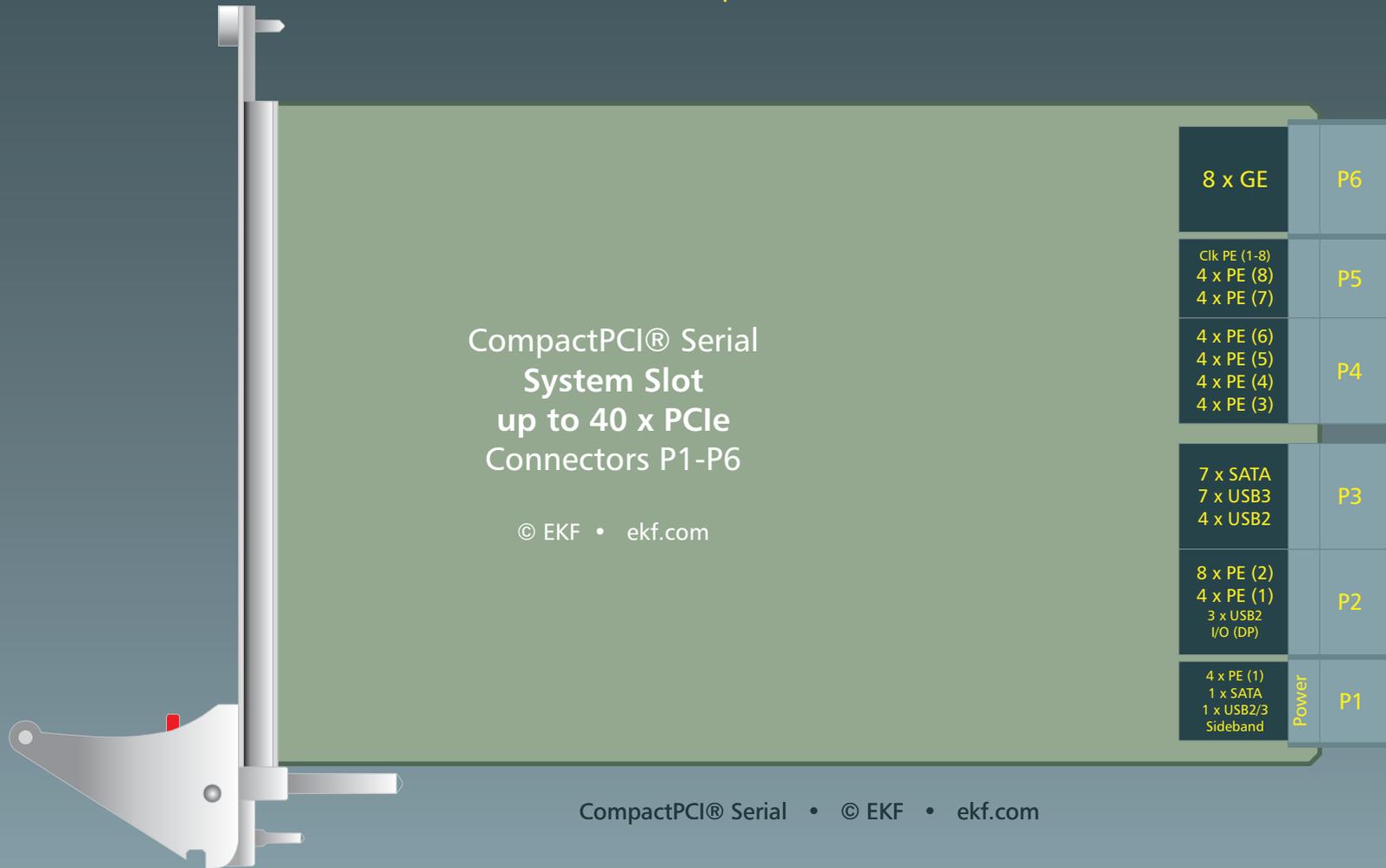
www.ekf.com/s/srs/srs4401.html



SRS-4401-SERIAL CompactPCI® Serial

CompactPCI® Serial Connectors

A system slot card (CPU) provides up to 40 x PCIe
 In addition up to 8 x SATA 8 x USB 8 x GbE



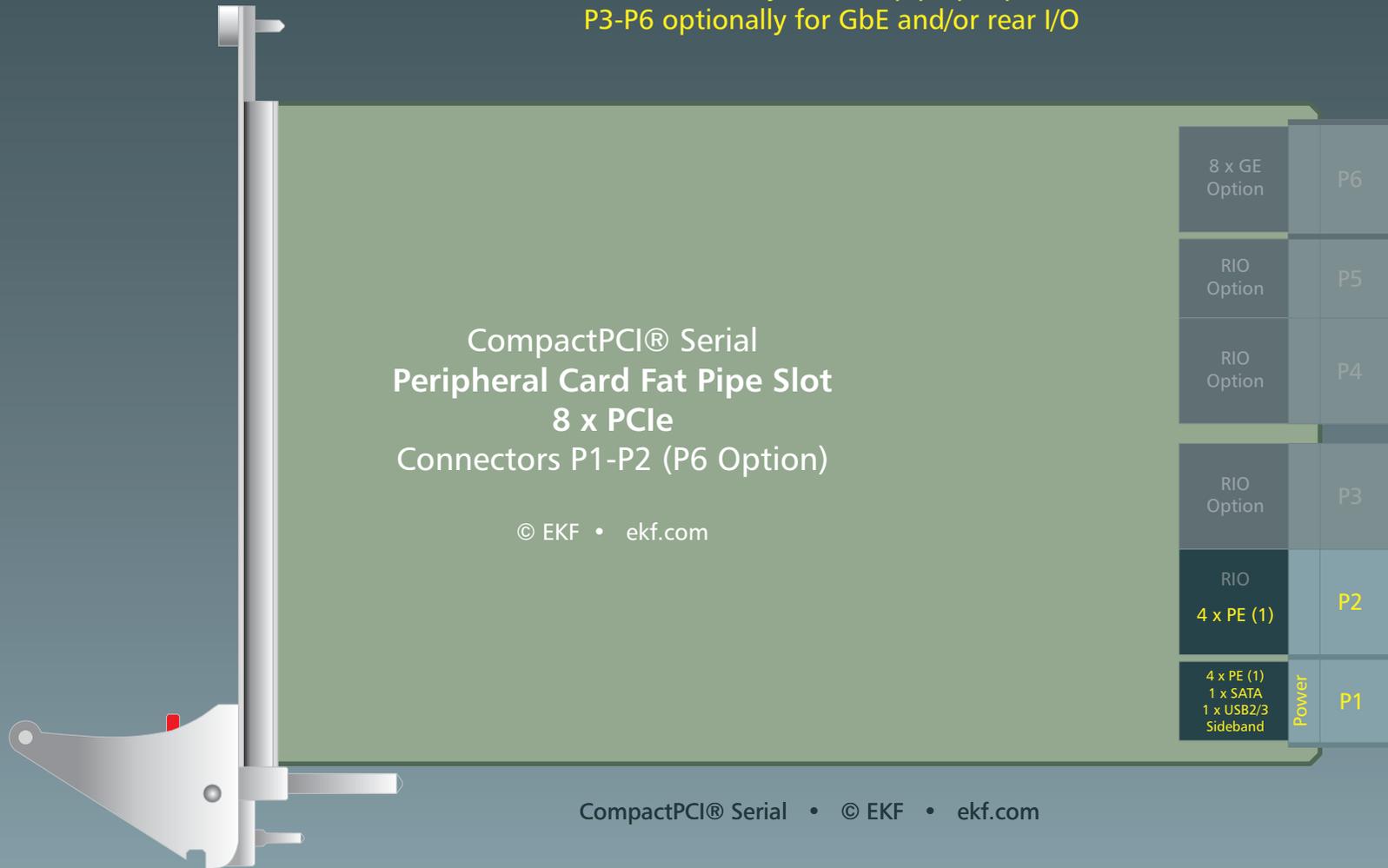
Gigabit Ethernet
 star architecture
 or full mesh

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In a CPCI Serial system, up to 40 x PCIe lanes can be distributed across the backplane
 to 2 x fat pipe peripheral slots (8 lanes each) and 6 x standard peripheral slots (up to 4 lanes each)

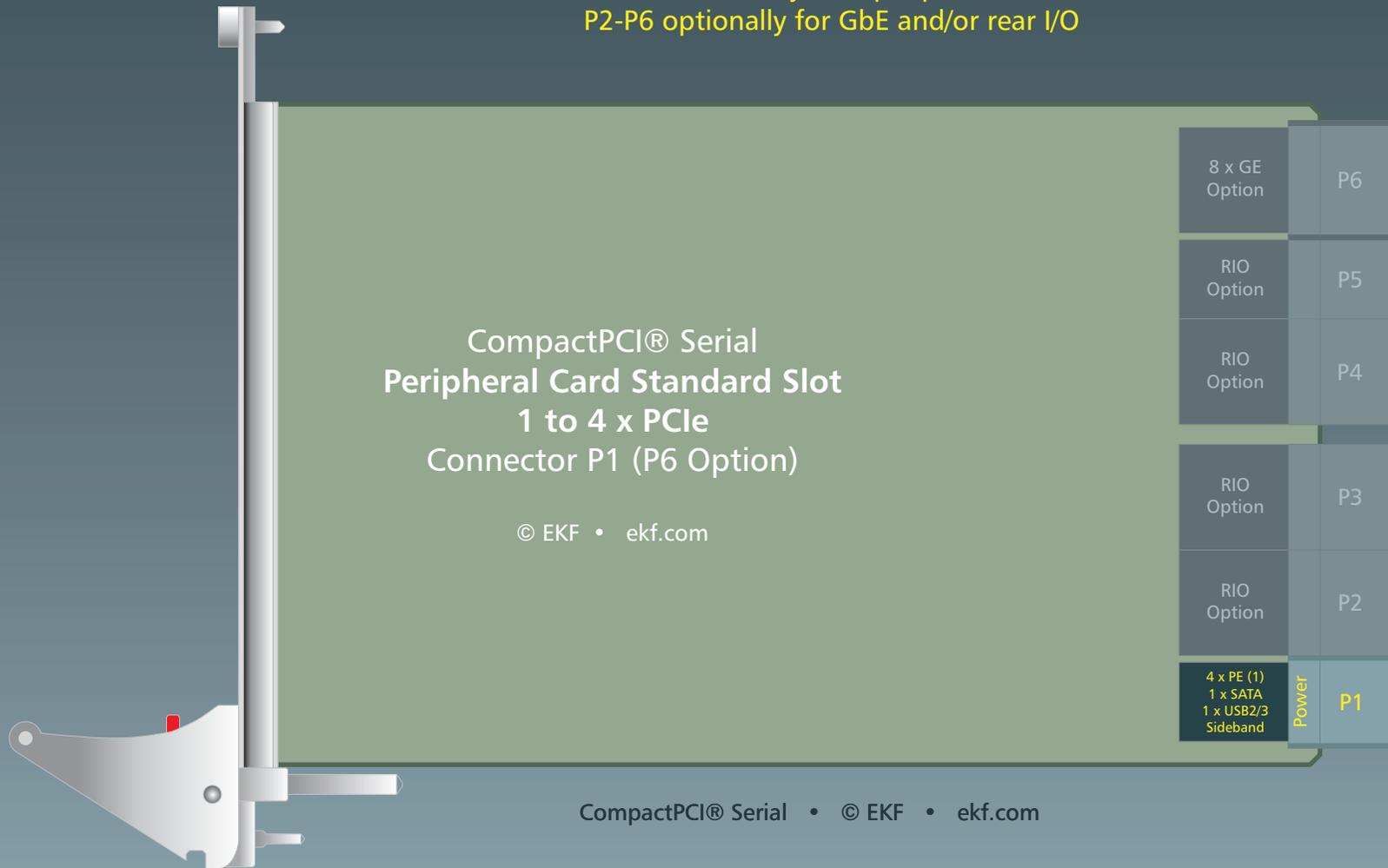
CompactPCI® Serial Connectors

A fat pipe peripheral slot provides 8 x PCIe 1 x USB 1 x SATA
P1-P2 are mandatory on a fat pipe peripheral card
P3-P6 optionally for GbE and/or rear I/O



CompactPCI® Serial Connectors

A CompactPCI® Serial peripheral slot provides up to 4 x PCIe 1 x USB 1 x SATA
P1 is mandatory on a peripheral card
P2-P6 optionally for GbE and/or rear I/O



CompactPCI® Serial Systems

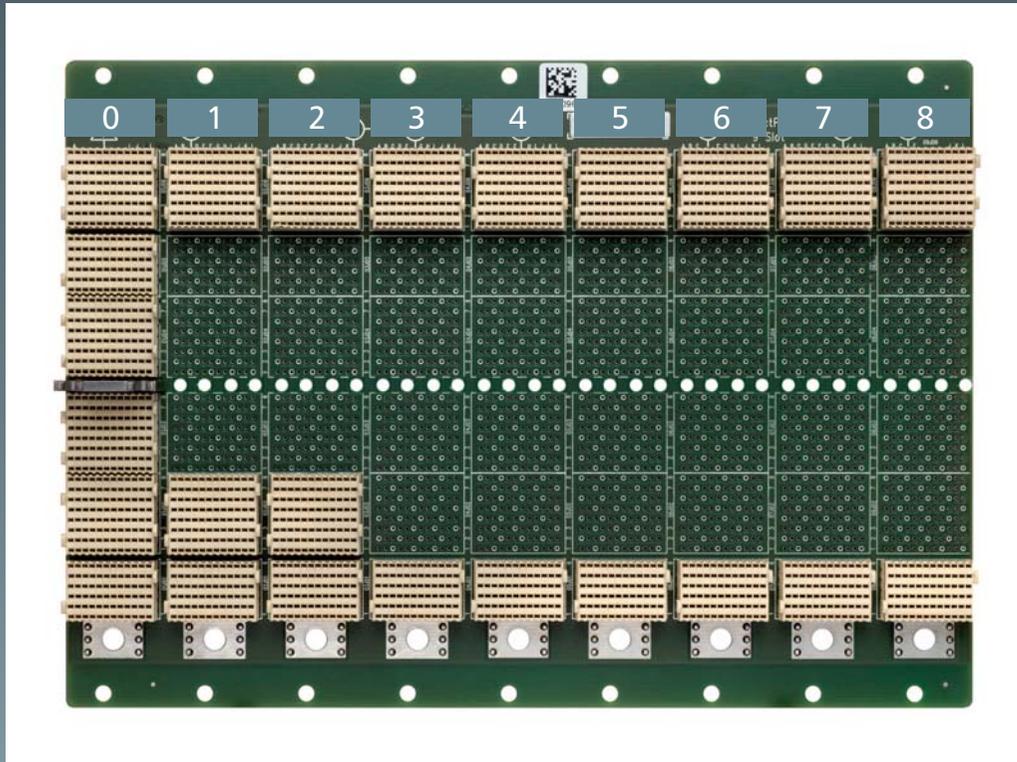
System expansion made easy - add mass storage cards or I/O as required by your application



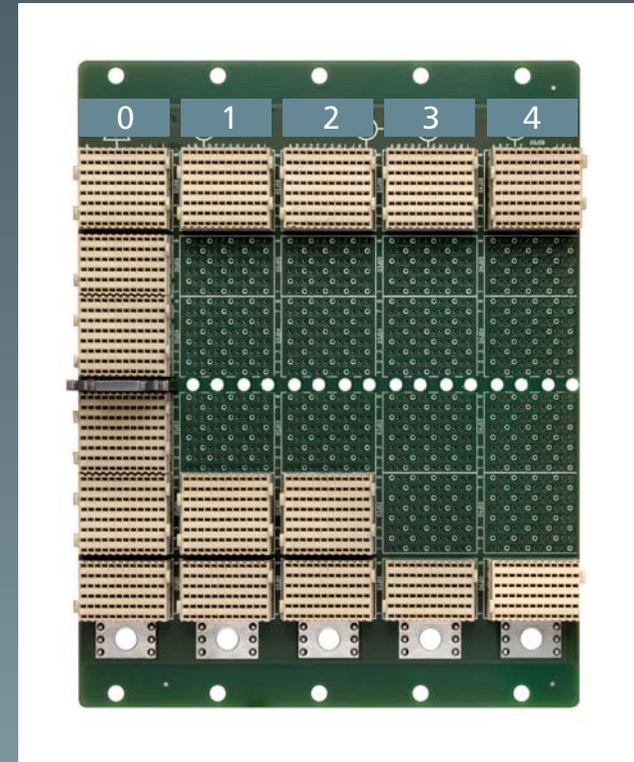
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CompactPCI® Serial Connectors Filling Order Rules

The System Slot board (CPU) is the root complex (source) for up to 8 x PCIe Links, 8 x SATA/SAS, 8 x USB, 8 x GbE distributed across a cPCI-S backplane to the Peripheral Slots. Please note the descending precedence order for SATA channels.



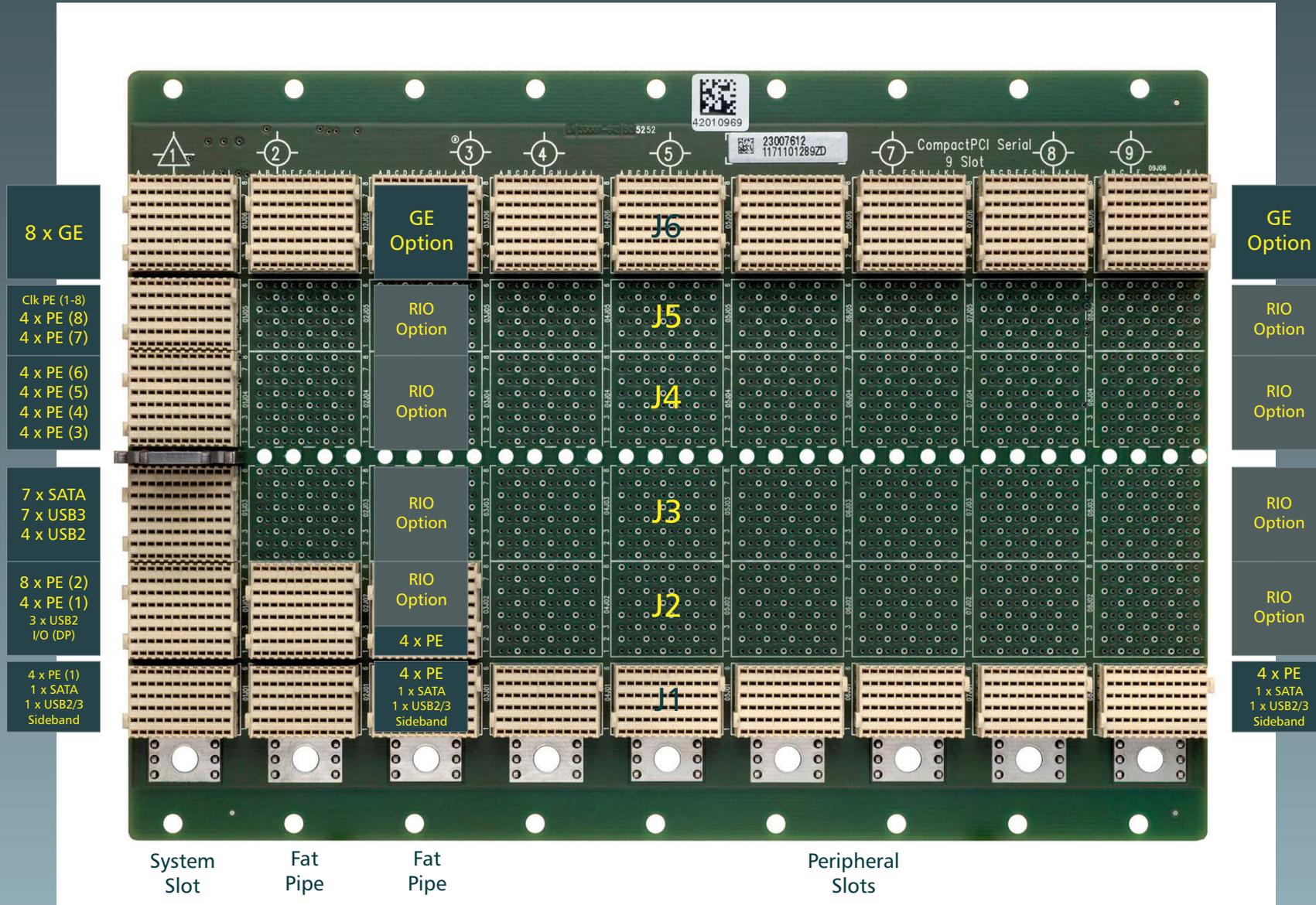
PE Link	1	2	3	4	5	6	7	8
USB	1	2	3	4	5	6	7	8
SATA	8	7	6	5	4	3	2	1
GbE	1	2	3	4	5	6	7	8



PE Link	1	2	3	4
USB	1	2	3	4
SATA	4	3	2	1
GbE	1	2	3	4

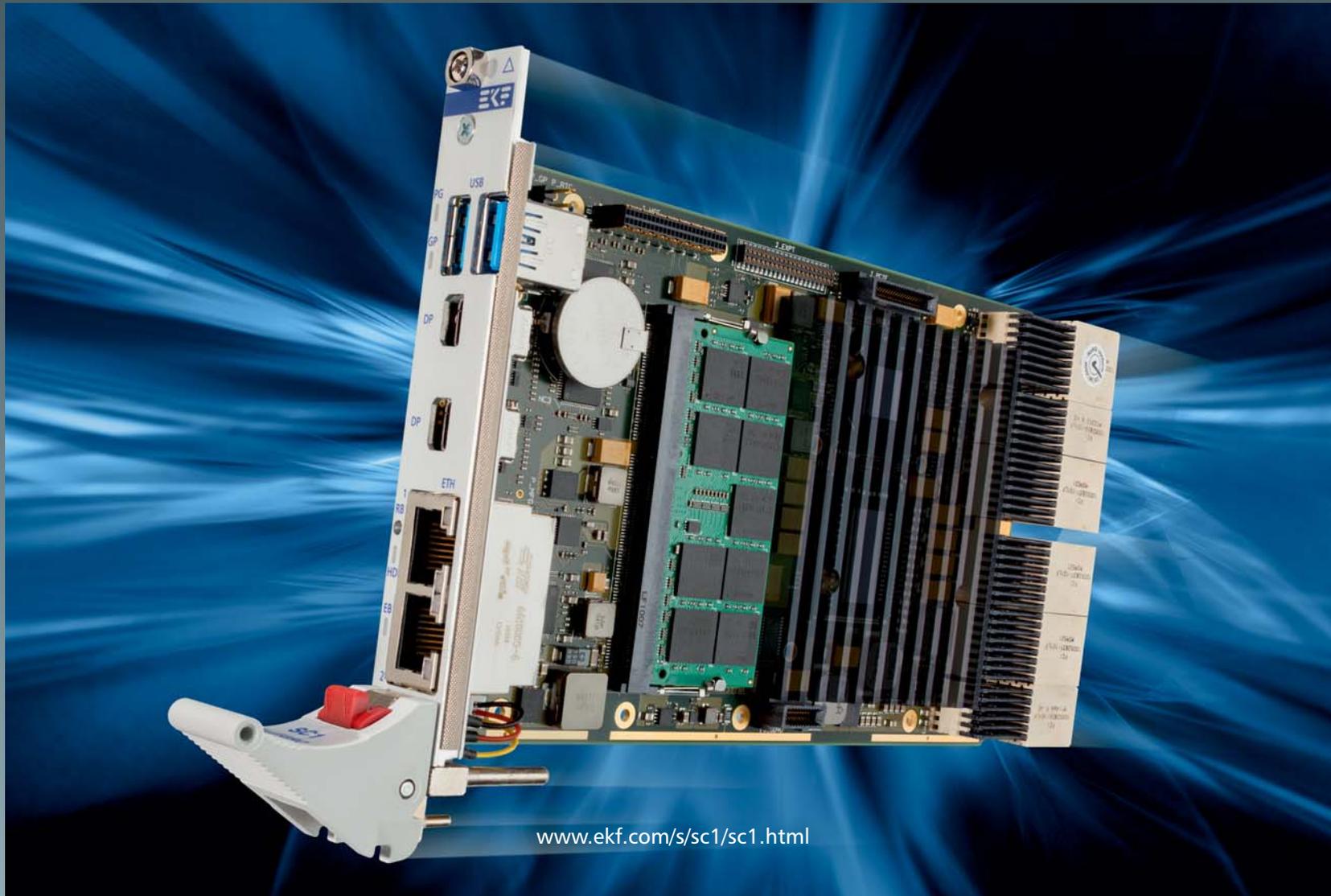
CompactPCI® Serial Connectors • Slot Types

System Slot J1-6 • Fat Pipe Slots J1-2, Option J6 • Peripheral Slots J1, Option J6
Positions not filled: RIO Option



CompactPCI® Serial CPU Card

SC1-ALLEGRO
3rd Gen Intel® Core™
i7 Series Ivy Bridge Processor

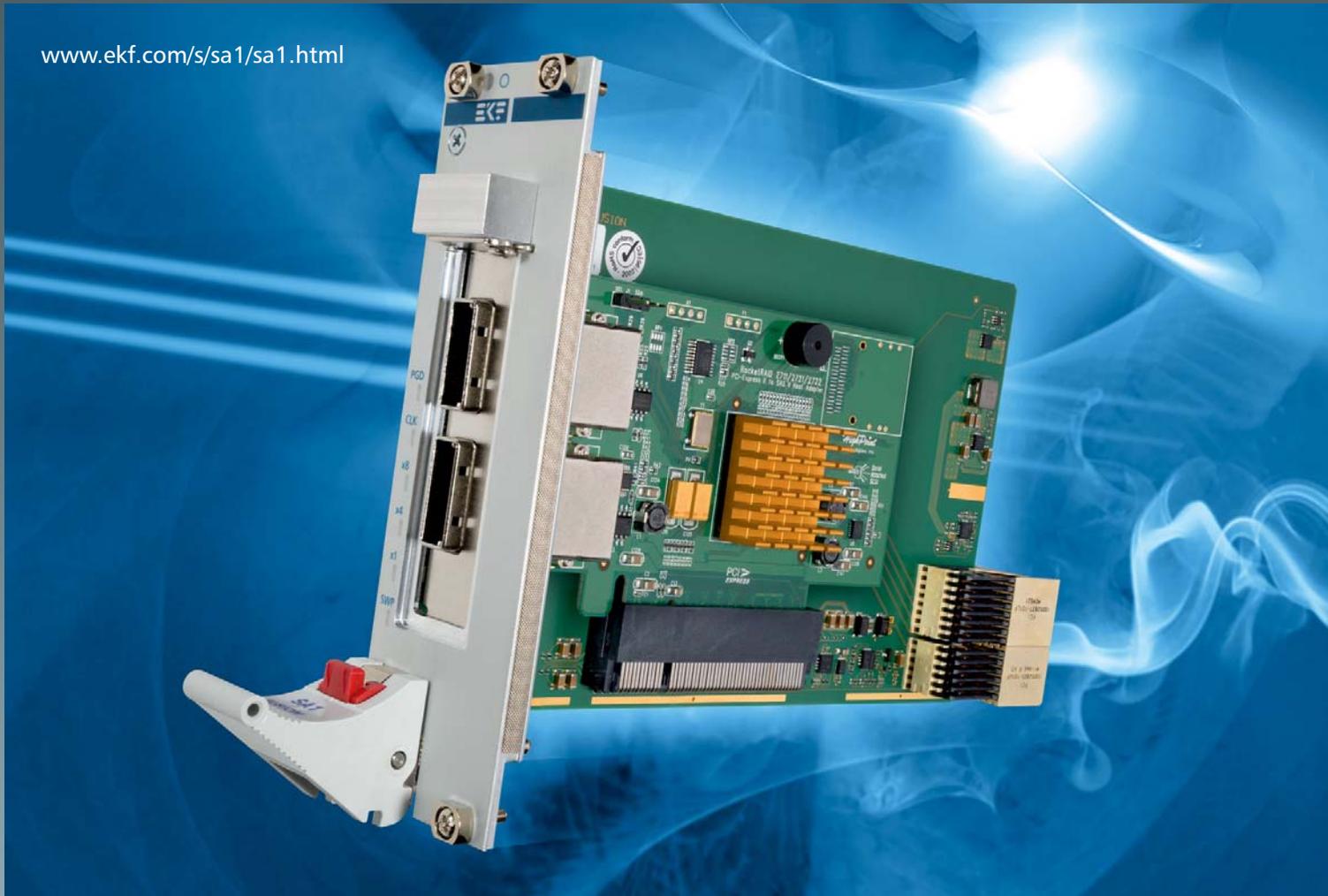


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CompactPCI® Serial Peripheral Card

Sample application - PCIe Card carrier

www.ekf.com/s/sa1/sa1.html



SA1-FUSION • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

Sample application - USB 3.0 & SATA controller - front panel eSATA/USB3 combo connectors
note that only P1 is required for typical peripheral slot cards



SB1-OBOE • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

Sample application - USB 3.0 controller



SB9-SKA • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

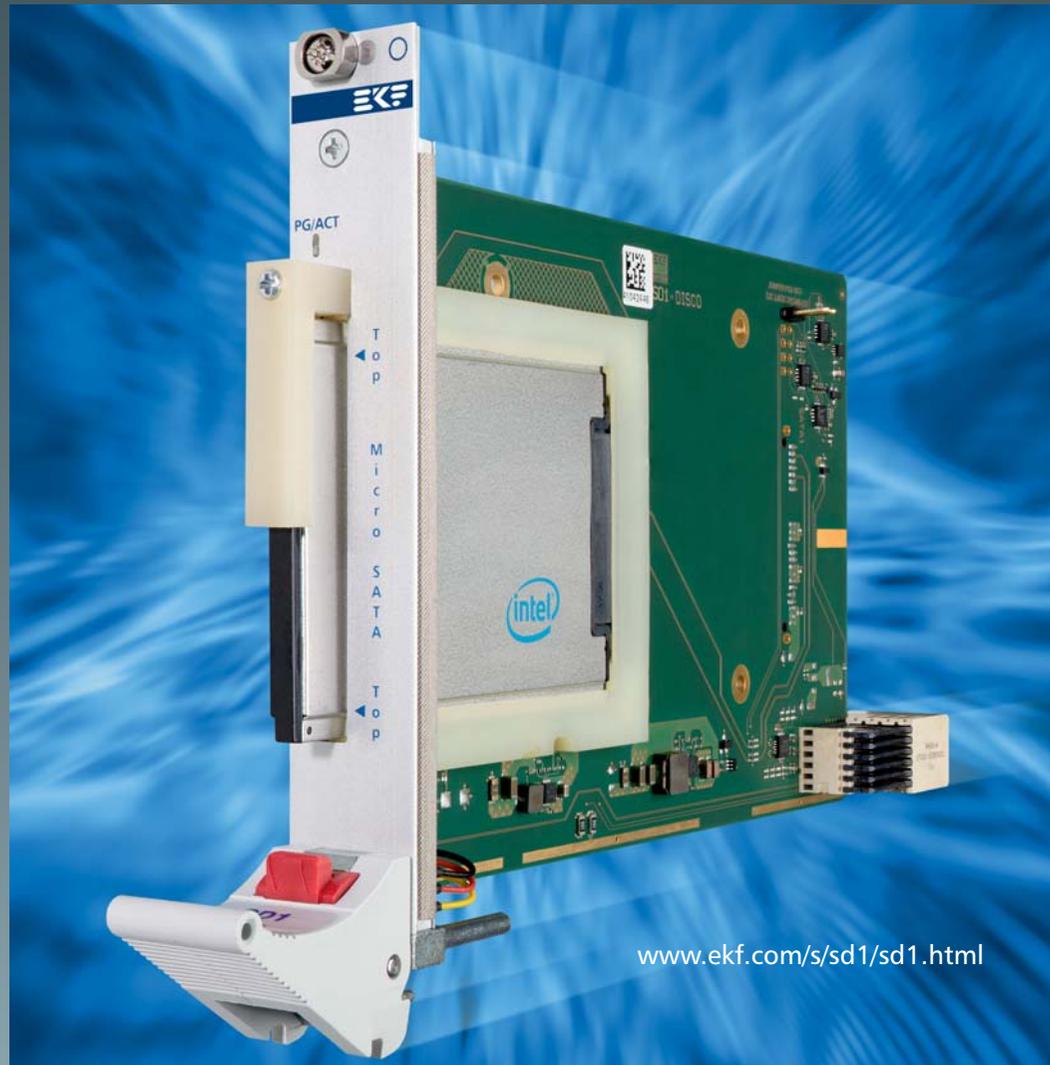
Sample application - simple SATA storage module



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

CompactPCI® Serial Peripheral Card

Sample application - removable 1.8-inch SATA SSD



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CompactPCI® Serial Peripheral Card

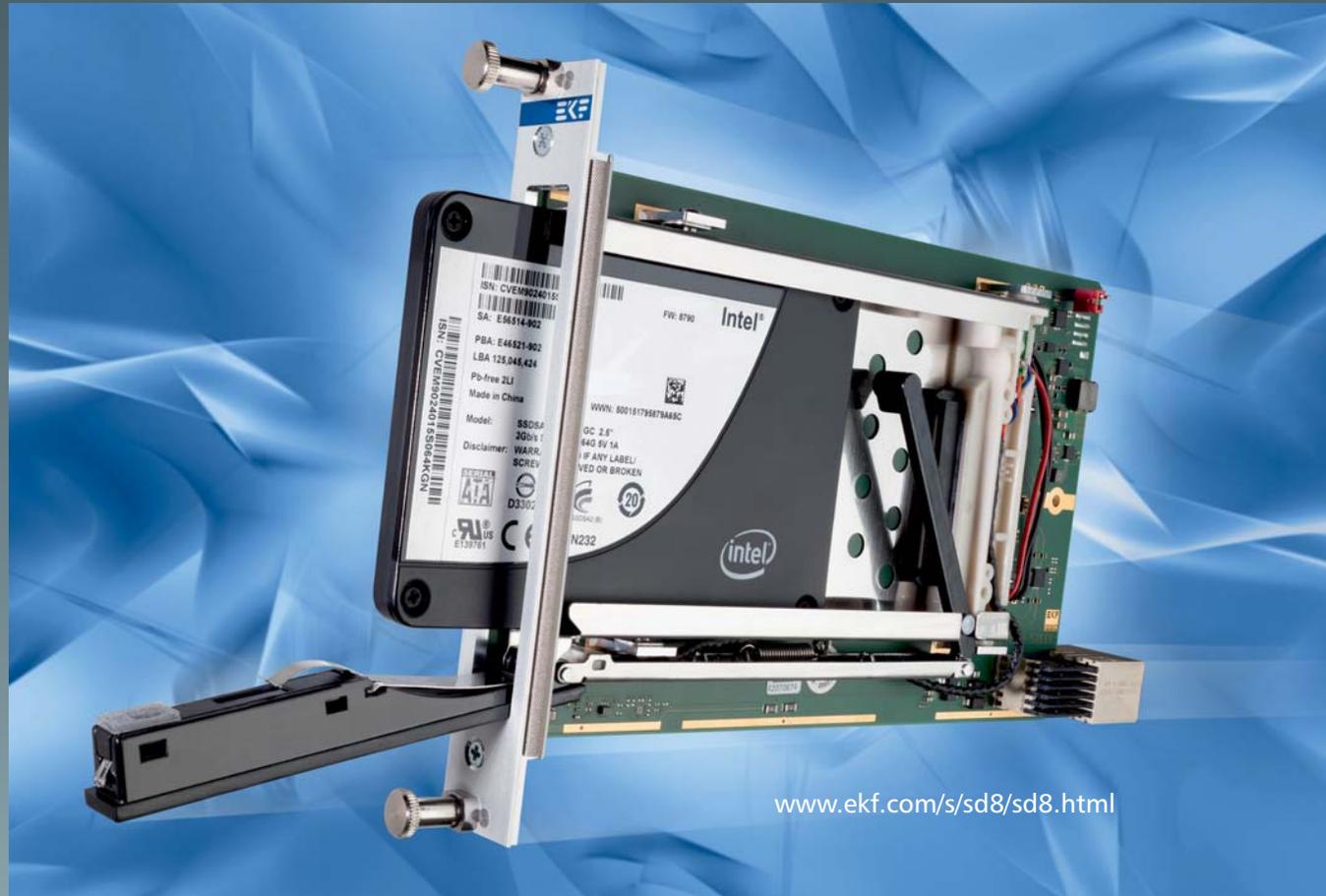
Sample application - eSATA I/O



SD7-TRACK (6G RAID) SD9-INDIE (3G SATA) • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

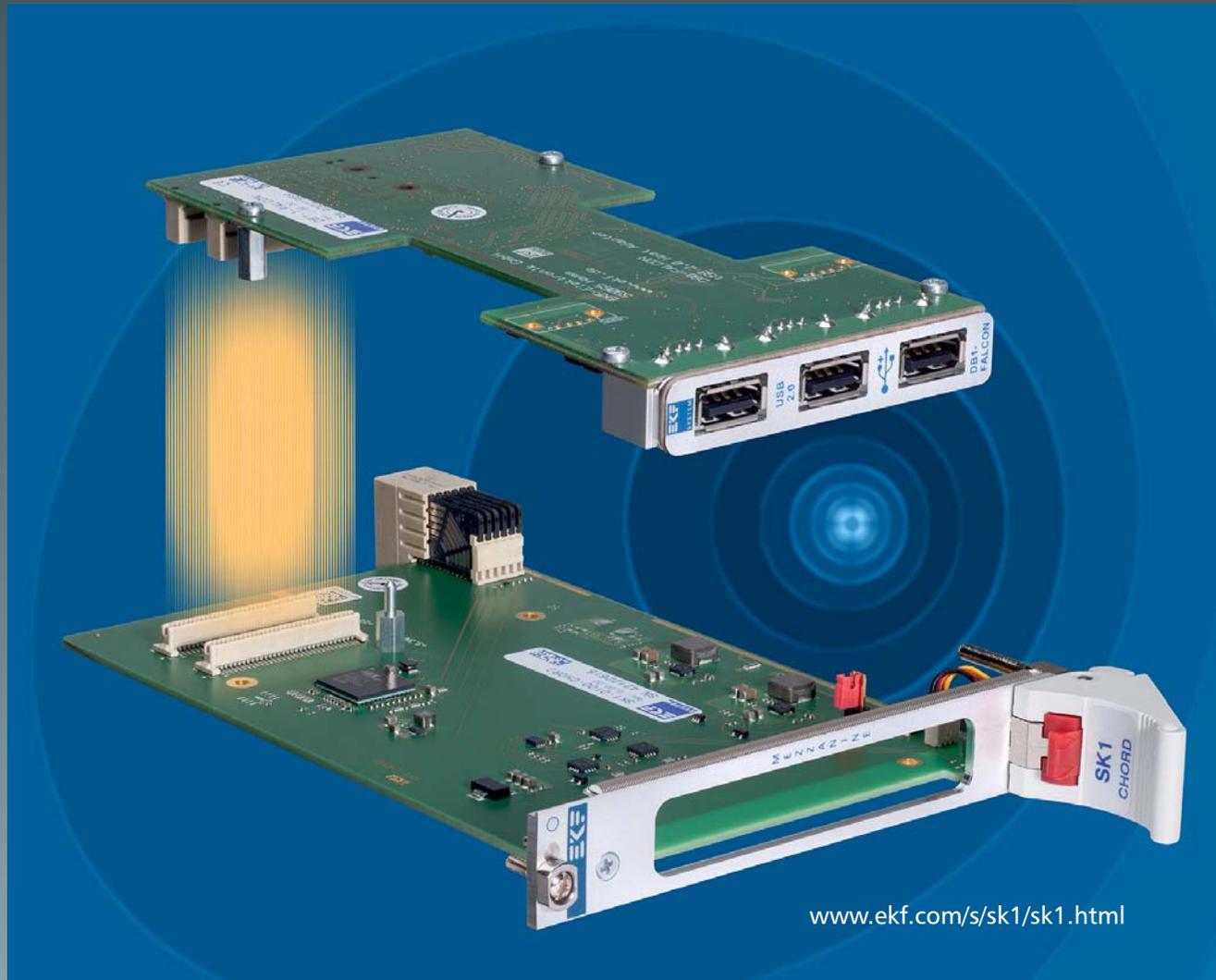
Sample application - removable 2.5-inch SATA SSD



SD8-STEEL • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

Sample application - PMC carrier board



SK1-CHORD • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

Sample application - XMC carrier board



SK2-SESSION • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

Sample application - 5-Port Gigabit Ethernet controller



SN1-REVERB • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

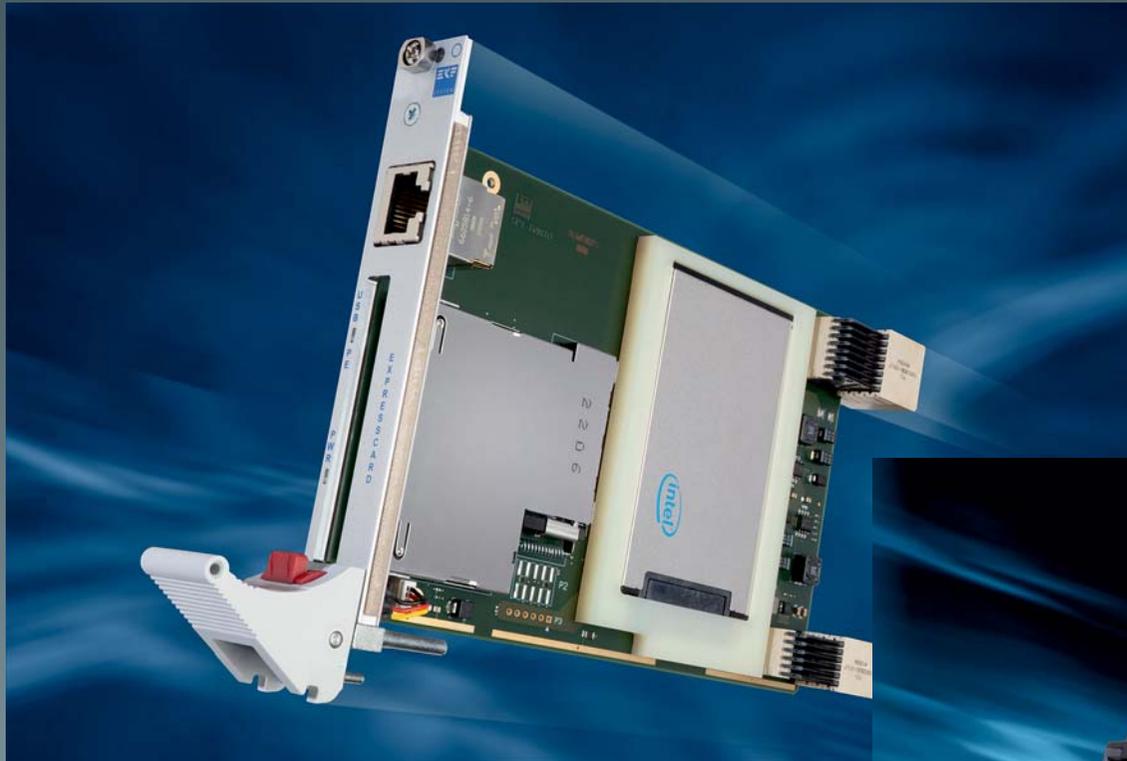
Sample application - 5-Port Gigabit Ethernet controller w. M12 connectors



SN2-VIBRATO • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

Sample Application - ExpressCard™ and 1.8-Inch SATA SSD



SP1-BANJO • CompactPCI® Serial • © EKF • ekf.com

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CompactPCI® Serial Peripheral Card

Sample application - PE Mini Card & μ SATA carrier board



www.ekf.com/s/sp2/sp2.html

SP2-LUTE • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

Sample application - RS-485 & RS-232 Isolated I/O



SU8-HUM (RS-485) SU9-RATTLE (RS-232) • CompactPCI® Serial • © EKF • ekf.com

CompactPCI® Serial Peripheral Card

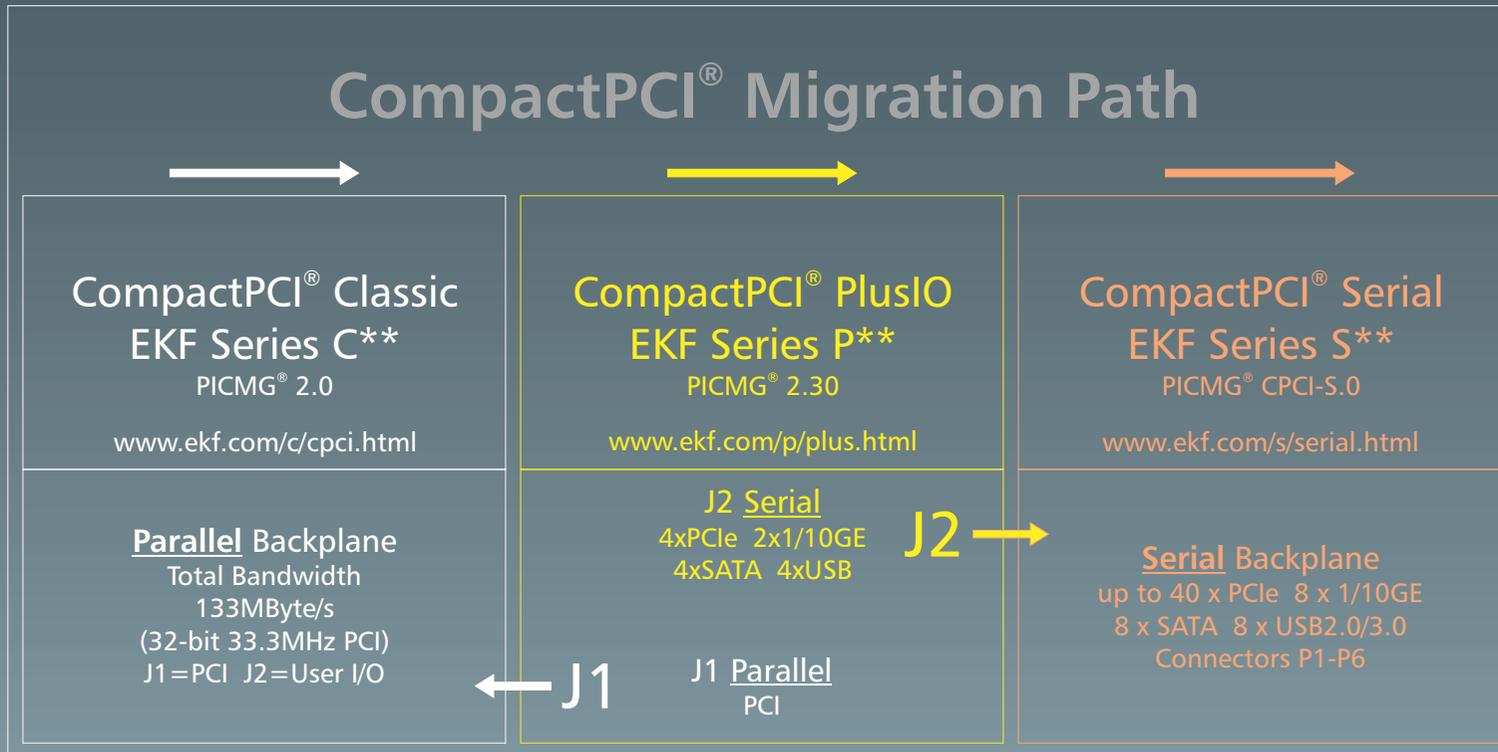
Sample application - Fat Pipe Slot - MXM graphics module carrier



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CompactPCI® Goes Serial

For a transitional period, we will see heterogeneous (hybrid) systems with a CompactPCI® PlusIO CPU card in the middle, which allows employment of both - CompactPCI® Classic and CompactPCI® Serial peripheral boards - on a hybrid backplane.

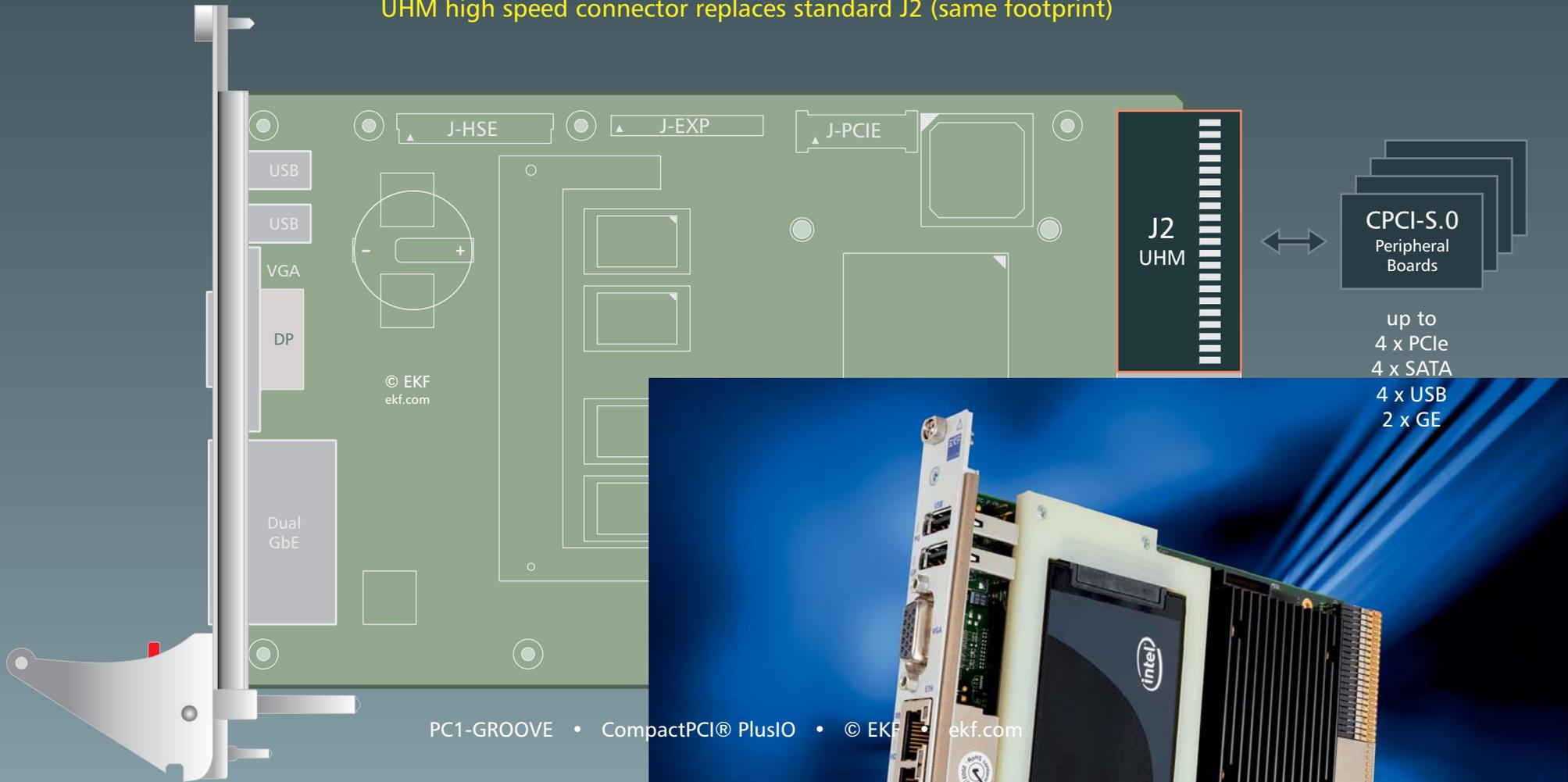


J2 is a High Speed Signal UHM Connector
Usage for RIO or CPCI Serial Backplane

CompactPCI® PlusIO (PICMG® 2.30) • CompactPCI® Serial (PICMG® CPCI-S.0)

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)



PC1-GROOVE • CompactPCI® PlusIO • © EKF • ekf.com

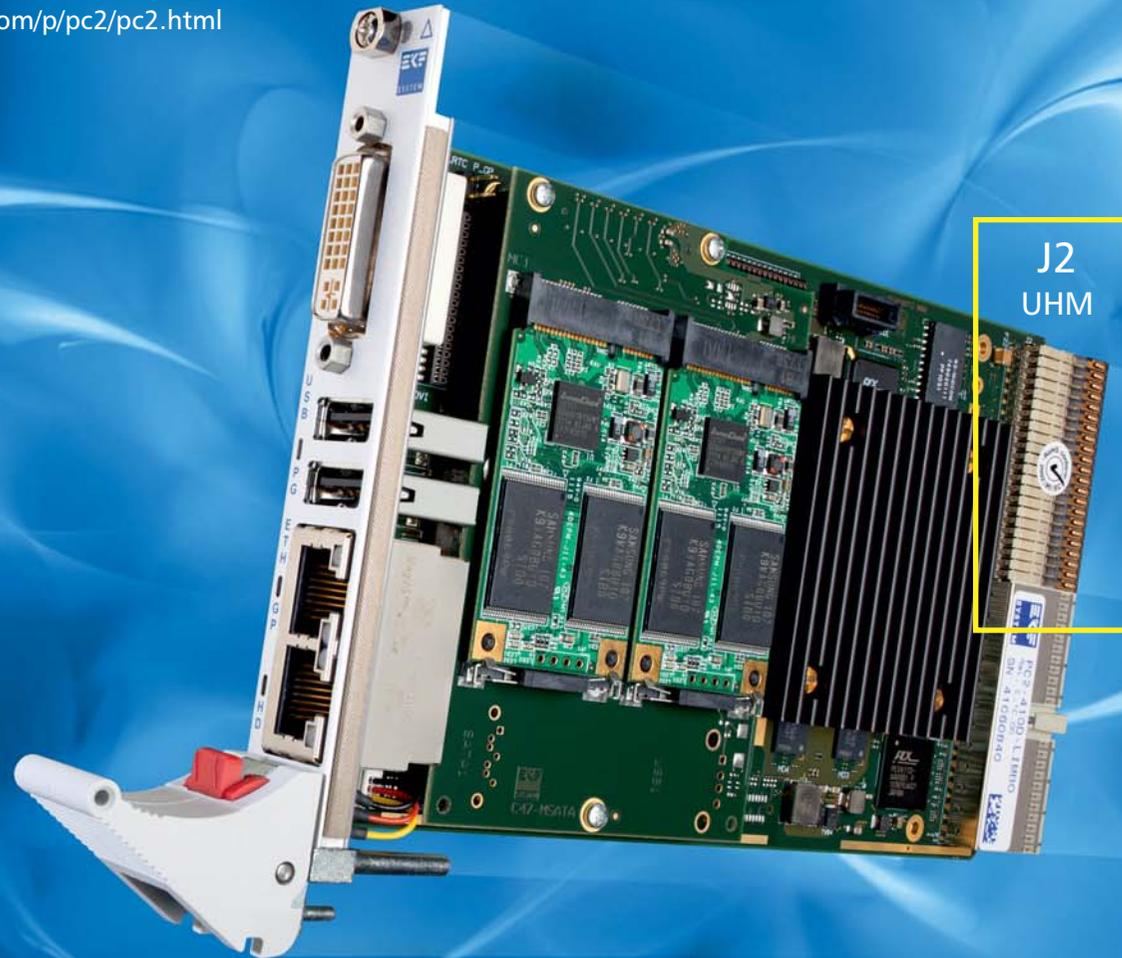
www.ekf.com/p/pc1/pc1.html

CompactPCI® Serial - the Smart Solution

CompactPCI® PlusIO CPU Card

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

www.ekf.com/p/pc2/pc2.html



PC2-LIMBO • CompactPCI® PlusIO • © EKF • ekf.com

CompactPCI® PlusIO CPU Card

3rd Generation CompactPCI® PlusIO CPU card - PC3-ALLEGRO



CompactPCI® PlusIO Rear I/O Transition Module

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



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CompactPCI® PlusIO Rear I/O

Profit from standardized high speed rear I/O



www.ekf.com/p/pr1/pr1.html

CompactPCI® PlusIO CPU Side Cards

Mezzanine expansion modules available (8HP assembly)

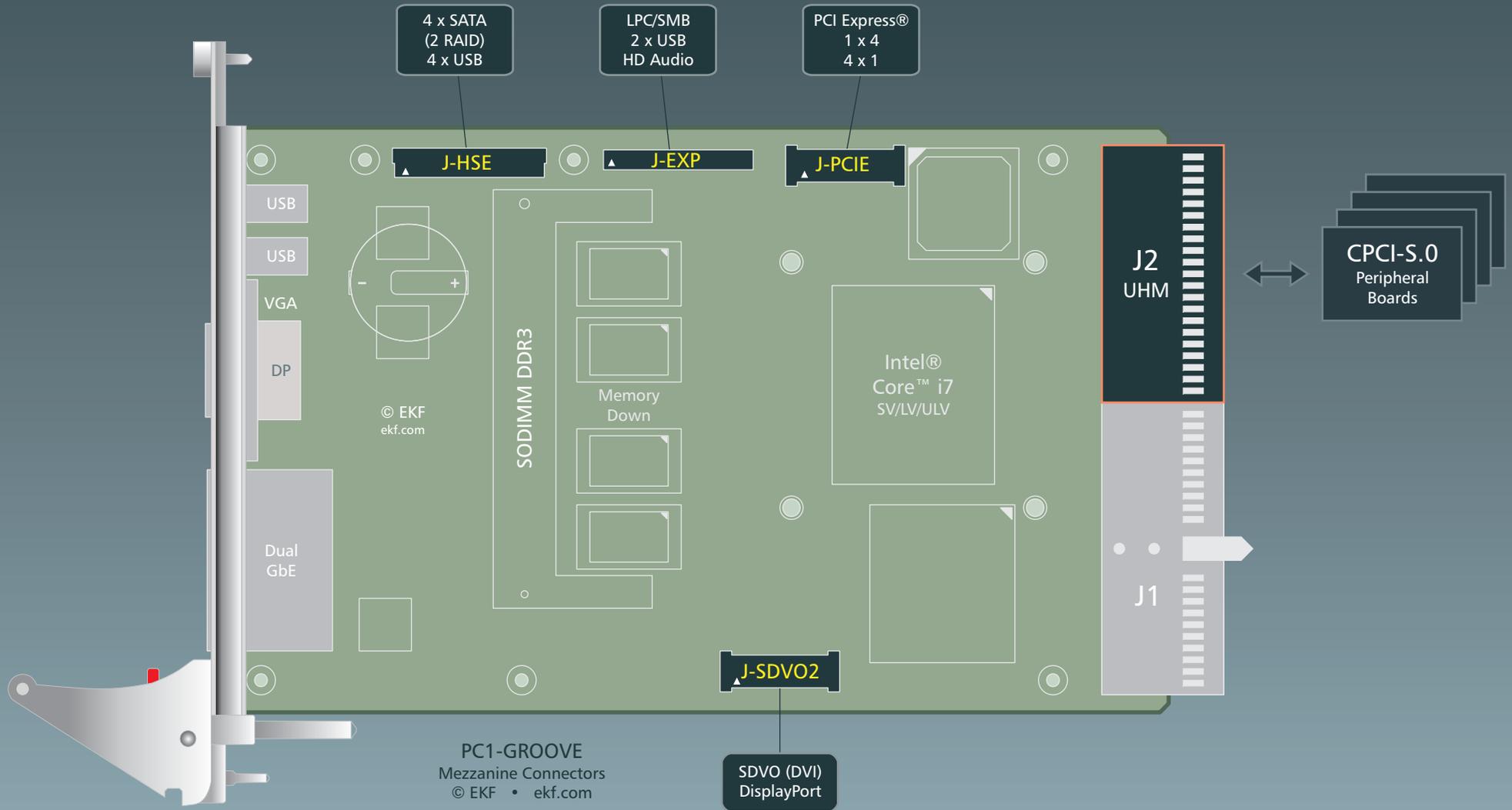


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CompactPCI® PlusIO CPU Mezzanine Expansion

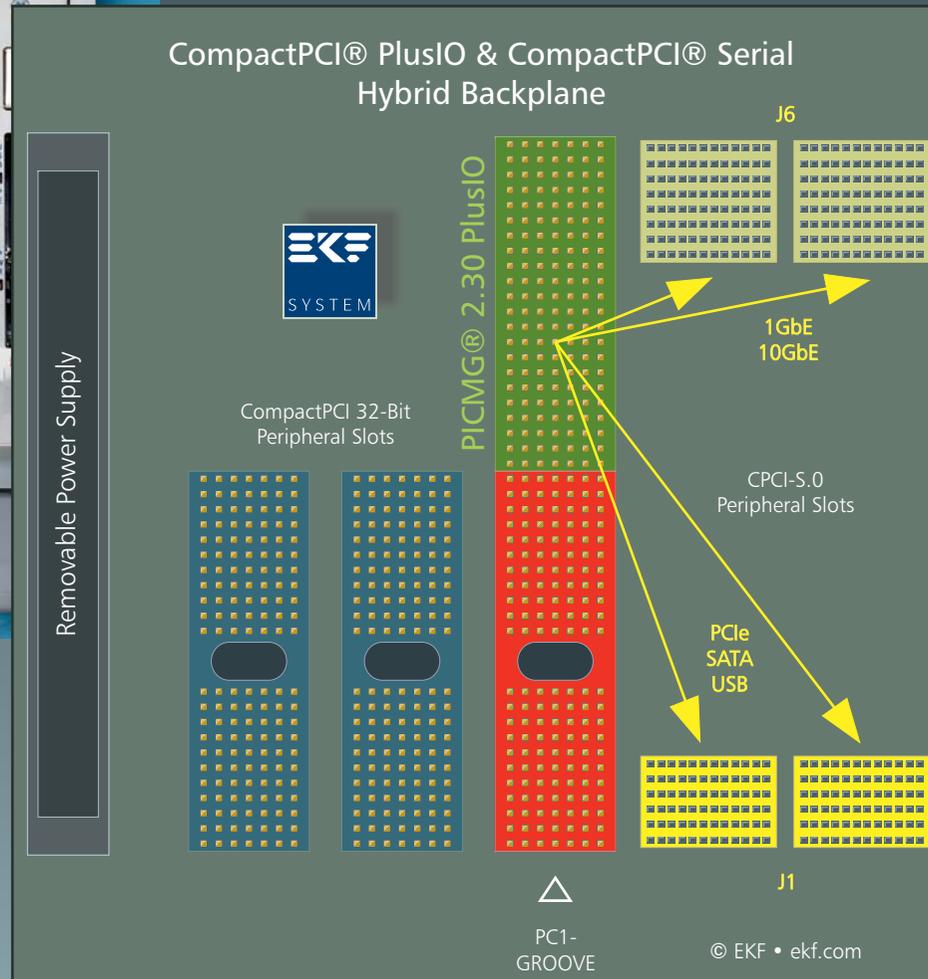
Side board I/O connectors for mezzanine expansion available on EKF CPU cards



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

CompactPCI® Serial - the Smart Solution



BlueLine Hybrid System



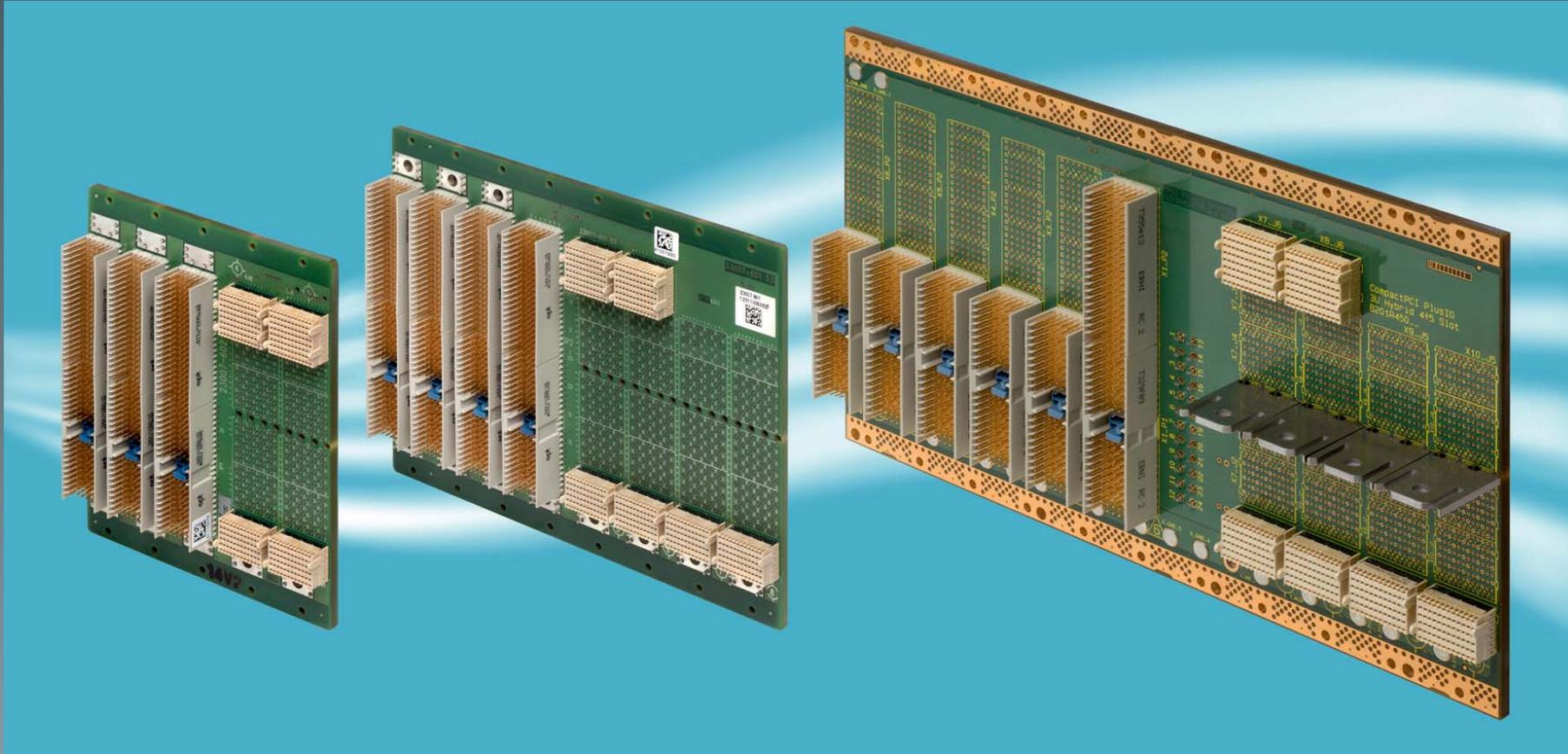
CompactPCI® Classic & CompactPCI® Serial Hybrid Systems

Hybrid systems comprise the best of both worlds



CompactPCI® Classic & CompactPCI® Serial Dual-Backplanes

Thanks to PlusIO, hybrid backplanes allow concurrent usage of CPCI Classic cards and CPCI Serial boards
Hybrid backplanes are available with an empty slot for 8HP PlusIO CPU board & mezzanine side card assembly



Sample Hybrid Backplanes CompactPCI® Classic & CompactPCI® Serial

The CompactPCI® PlusIO system slot is located in the middle

CompactPCI® Classic & CompactPCI® Serial Dual-Systems

Hybrid systems allow concurrent usage of CPCI Classic cards and CPCI Serial boards

www.ekf.com/s/srp4401/srp4401.html



SRP-4401-PLUSIO

The CompactPCI® PlusIO system slot is located in the middle

CompactPCI® Classic & CompactPCI® Serial Dual-Systems

Hybrid systems allow concurrent usage of CPCI Classic cards and CPCI Serial boards

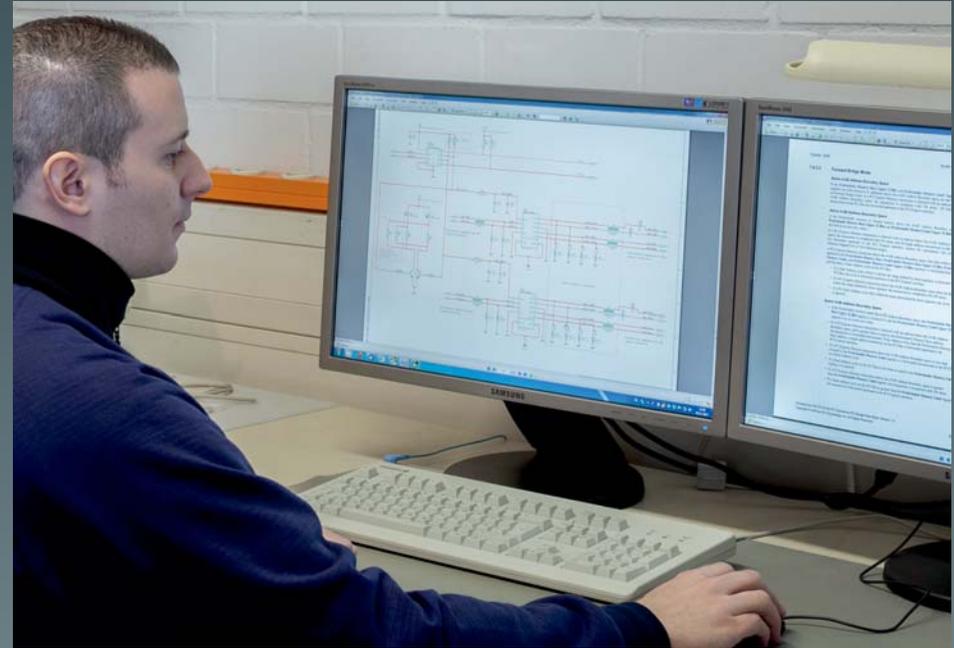
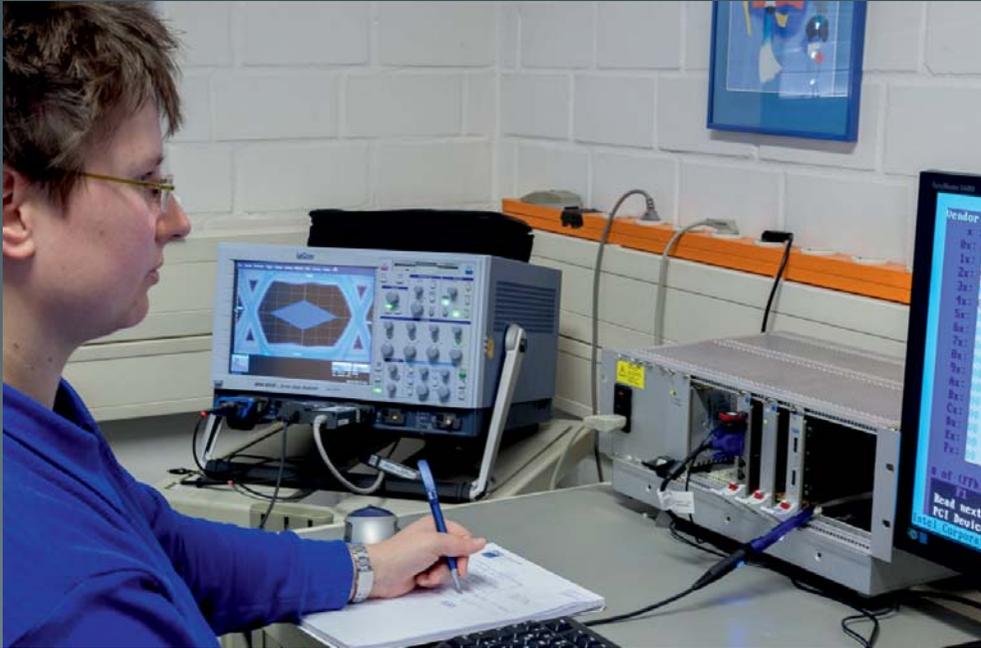
www.ekf.com/s/srp4401/srp4401.html



SRP-4401-PLUSIO

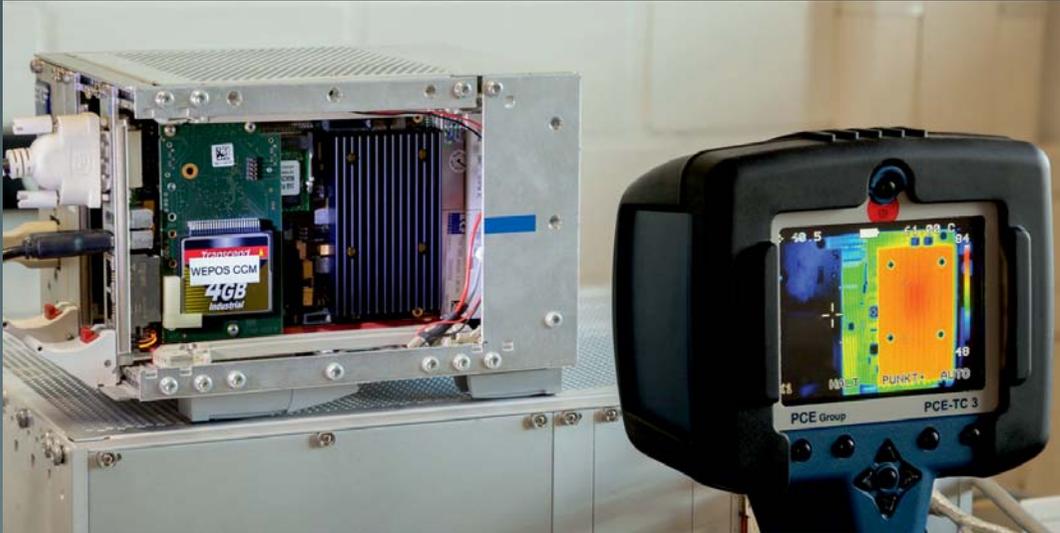
The CompactPCI® PlusIO system slot is located in the middle

High Speed Design by Competence: EKF



Built to Reliability and Ruggedness

Why chose EKF as your CompactPCI® Serial systems supplier?



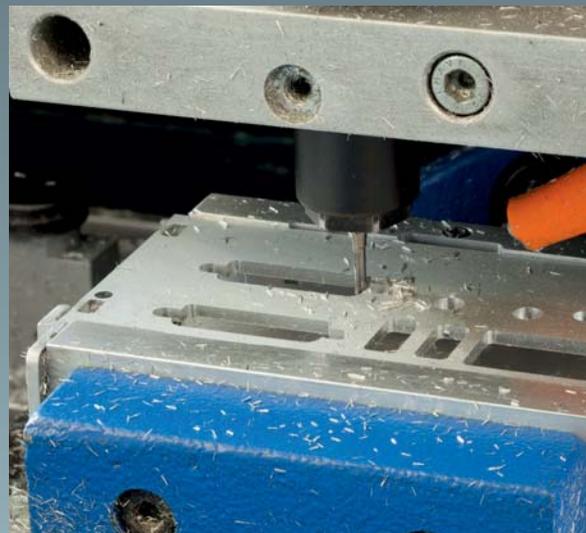
Thermal design & verification



AOI



X-Ray



Custom specific manufacturing



ESD & regulatory verification

Embedded Computers Made in Germany



Custom Specific Systems

Either hybrid or native - CompactPCI® and CompactPCI® Serial built to custom racks



sales@ekf.com

CompactPCI® Serial - the Smart Solution

Embedded Computers Made in Germany

boards. systems. solutions.

