CompactPCI® Technology
Solutions from the Specialist.

Shortform Catalogue 2016
Industrial Microcomputers – Made in Germany
Founded back in 1972, the EKF story of success has been ongoing for more than 40 years. In the late 70s EKF began to develop modular industrial microcomputers with 8 bit technology and Eurocard form factor. During the mid-80s VMEbus boards and systems in 16/32 bit technology and 3U/6U size expanded the EKF portfolio. In 1998 EKF started 3U/6U, a CompactPCI product line based on the CPCI 2.0 standard. From 2009 onwards the new sub-standard CompactPCI PlusIO was implemented. Since 2011 the CompactPCI Serial product portfolio has been growing continuously: today EKF is a leading vendor for CompactPCI technology, building on more than 30 years of experience in Eurocard and 19” system design. Apart from a portfolio with a wide range of standard products, EKF is also offering customized development.

As a privately owned German manufacturer EKF Elektronik is 100% powered from its own resources and is independent. The company is located in Hamm in the heart of Westphalia. All products are designed and manufactured by EKF to guarantee a high level of quality, flexibility and long-time availability.

EKF products are doing a reliable job worldwide in a wide range of different applications, quite often under harsh conditions.
System Controller

**cPCI PlusIO/cPCI Classic**

**PC1-GROOVE**
CompactPCI/PlusIO CPU board with Intel Core i7 processor 2.53GHz, 8GB DDR3 RAM (4GB soldered), DisplayPort or VGA, 2x GbE, 2x USB, I/O options via sideboard, PlusIO on J2, opt. CompactPCI 64bit/PXI compatible

**PC2-LIMBO**
CompactPCI/PlusIO CPU board with Intel ATOM E6xx processor 1.6GHz, 2GB DDR2 RAM soldered, DVI-I, 2x GbE, 2x USB, I/O options via sideboard, PlusIO on J2, opt. CompactPCI 64bit/PXI compatible

**PC3-ALLEGRO**
CompactPCI/PlusIO CPU board with 3rd. Gen Intel Core i7 processor, 16GB DDR3 RAM with ECC (8GB soldered), dual mDP or VGA, 2x GbE, 2x USB3.0, I/O options via sideboard, PlusIO on J2, opt. CompactPCI 64bit/PXI compatible

**PC4-PRESTO**
CompactPCI/PlusIO CPU board with Intel Core i7 Gen. 4 processor QC (1.70GHz) or DC (2.7GHz), 16GB DDR3 RAM with ECC (8GB soldered), dual mDP or VGA, 2x GbE, 2x USB3.0 frontside, further I/O options via sideboard, PlusIO on J2, opt. CompactPCI 64bit/PXI compatible

**PCS-LARGO**
CompactPCI/PlusIO CPU board with 5th Gen. Intel Core i7 processor, 24 GB DDR3 RAM with ECC (8GB soldered), dual mDP or VGA, 2x GbE, 2x USB3.0 frontside, further I/O options via sideboard, PlusIO on J2, opt. CompactPCI 64Bit/PXI compatible

**PR1-RIO**
CompactPCI PlusIO CPU rear I/O transition module via J2, 2x GbE and dual eSATA on back panel, onboard 4x PCIe for cabling, 2x SATA, 2x USB, aux. power connector

COMING SOON
**System Controller**

**cPCI Serial**

**SC1-ALLEGRO**
CompactPCI Serial CPU board with Intel Core i7 processor 2.10GHz Quad Core, 16GB DDR3 RAM with ECC (8GB soldered), dual mDP or VGA, 2x GbE, 2x USB3.0, I/O options via sideboard.

**SC2-PRESTO**
CompactPCI Serial CPU board with 4th. Gen Intel Core i7 processor e. g. QC (1.70GHz) or DC (2.7GHz), 16GB DDR3 RAM with ECC (8GB soldered), dual mDP or VGA, 2x GbE, 2x USB3.0, I/O options via sideboard.

**SC3-LARGO**
CompactPCI Serial CPU board with Intel Core i7 QC/DC 5th Gen, i7-5850EQ (4 Cores, 2.7GHz) Intel® Iris™ Pro graphics or i7-5700EQ (4 Cores, 2.6GHz) Intel® HD graphics 24GB DDR3 RAM with ECC (8GB soldered), dual mDP or VGA, 2x GbE, 2x USB 3.0, I/O options via sideboard.

**SC4-LARGO**
CompactPCI Serial CPU board with Gen 6 Intel Core i7 QC/DC, 32GB DDR4 RAM with ECC/non-ECC (16GB soldered), dual DP, 2x GbE, 2x USB 3.0, I/O options via sideboard.

**SJP-JAM**
CompactPCI Serial System Slot Carrier for Miriac QorIQ Power Architecture module, 2x GbE, DP, 2x USB 3.0, DP/DVI graphics and COM port on frontpanel, I/O options via sideboard.
System Controller Expansion

EKF CPU boards offer onboard connectors for optional expansion of functionality with side cards and modules. All cards are powered from the supporting CPU board. Backplane interconnect is optional for Rear I/O only. Bundles may remain in 4HP format if a small mezzanine module is selected (e.g. C47-MSATA) or can result in an 8HP or 12HP unit. Bundles are fixed by screws and have a unique panel to fulfill higher shock and vibration requirements. All bundles are shipped readily assembled.

PCS-BALLETT
4HP Sideboard to EKF CPU Boards, onboard SATA 2.5”, 3 internal SATA Ports, 2 x USB3.0, DisplayPort F/P, Analog Audio, RS-232 (opt. Digital Audio), Rear I/O options, opt. add-on module for 2x RS232, PS/2, USB, resulting in 12HP assembly stack with CPU Card

SCS-TRUMPET
4HP Sideboard to EKF CPU boards, variety of front I/O as USB3.0/2.0, DP, Audio, RS232, SATA 6G onboard 2.5” or 2x M.2 slot, Rear I/O options SATA, UART (TTL), GPIO, USB, onboard expansion

PCL-CAPELLA
4HP Sideboard to EKF CPU boards, frontaccess cFast or Micro SATA 1.8” slot, 4x GbE, 2x SATA, 4x USB, 4x UART on Rear I/O, mSATA slot, secondary cFast connector onboard

EXPANSION MODULE CONCEPT
To expand CPU board functionality EKF offers a wide range of mezzanine modules and euro-card sideboards. Together with a mezzanine module whole unit remains 4HP, with a sideboard 8HP or 12 HP (with up to 4x RS-232) results.

C47-MSATA
Mezzanine Module to EKF CPU Boards, dual slot mSATA carrier, both channels operate individually or as SATA RAID level 0/1 dual drive, small pitch module

C48-M.2
Mezzanine Module to EKF CPU Boards, dual slot SATA 6G M.2 carrier, RAID level 0/1, supports module size 2230 to 2280
Peripheral Slot Controller

**cPCI Serial**

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**SA1-FUSION**
CompactPCI Serial peripheral board, carrier for PCIe card, supports PCIe x1, x4, x8 socket, occupies 8HP format

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**SB3-TONE**
CompactPCI Serial peripheral board, quad port PCIe to USB3.0 super speed controller, 4x frontside USB3 connectors

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**SBX-DUB**
CompactPCI Serial peripheral board, 16x USB3.0/2.0 ports, 4x USB3.0 frontside with full bandwidth each port for high performance applications, 12x or 16x ports via Rear I/O supported by SBR-RIO

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**SBR-RIO**
Rear I/O companion board to SBX-DUB. 16x USB 3.0 channels handover via backplane connectors P3/P4. SBR-RIO offers 8 ports from the back panel. Another 8 connectors are provided on-board

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**SD1-DISCO**
CompactPCI Serial peripheral board, carrier for onboard 2.5” SATA device up to 6Gbps, opt. USB3.0/2.0 onboard

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**SD3-GLISS**
CompactPCI Serial peripheral board, quad channel mSATA module carrier, four SATA 6Gbps interface ports based on Marvell PCIe 2.0 to SATA III controller, hardware RAID 0/1/10
Peripheral Slot Controller
cPCI Serial

SD4-SWEEP
CompactPCI Serial peripheral board, quad channel M.2 (NGFF) module carrier, four SATA 6Gbps interface ports based on Marvell PCIe 2.0 to SATA III controller, hardware RAID 0/1/10

SD7-TRAK
CompactPCI Serial peripheral board, dual port eSATA host adapter, PCIe to quad port SATA 6Gbps controller, assembly unit comprising SK2-SESSION with DX2-EAGLE

COMING SOON

SD8-STEEL
CompactPCI Serial peripheral board, carrier for SATA device 2.5”, fast device change via front panel door, opt. available standalone version

SE1-PITCH
CompactPCI Serial peripheral board, carrier for two M.2 slots, 1x M.2 NVMe SSD module socket according to socket 3 PCIe x4 SSD, 1x M.2 SATA SSD module socket according to socket 2 SATA SSD, supports module size 2230 to 22110

COMING SOON

SE2-MOOD
CompactPCI Serial peripheral board, carrier for 3x M.2 slots, 2x M.2 NVMe SSD module socket according to socket 3 PCIe x4 SSD for module size 2230 to 22110, 1x M.2 SATA SSD module socket according to socket 2 SATA SSD for module size 2230 to 2280

SF1-STUDIO
CompactPCI Serial peripheral board, carrier for 2x PCIe Minicard modules, suitable for Hilscher PCIe Mini Card real-time Ethernet & fieldbus modules e.g. EtherCAD, POWERLINK, PROFINET IO, CANopen, DeviceNet etc.
Peripheral Slot Controller

**cPCI Serial**

**SK1-CHORD**
CompactPCI Serial peripheral board, carrier for PMC module, supports 32bit 33/66MHz modules, frontside I/O access

**SK2-SESSION**
CompactPCI Serial peripheral board, carrier for XMC module, frontside I/O access

**SK3-MEDLEY**
CompactPCI Serial peripheral board, 1x XMC slot, supports up to PCIe Gen3 x8 modules, frontside I/O access

**SL1-COMBO**
CompactPCI Serial peripheral board, 7 port GbE unmanaged switch with Marvell controller, 5x RJ45 frontpanel ports, 2x backplane ports via P6 and P1 (NIC)

**SL4-TUBA**
CompactPCI Serial peripheral board, 20 port Giga-ETH switch, quad Marvell® 88E6350, 5x RJ45 frontpanel, 14x via P5/P6 backplane connector, 1x with Intel i210 Controller via P1

**SN1-REVERB**
CompactPCI Serial peripheral board, 5 port GbE NIC with Intel i210 controller, 5x RJ45 on frontpanel
Peripheral Slot Controller

**cPCI Serial**

**SN2-VIBRATO**
CompactPCI Serial peripheral board, 5 port GbE NIC with Intel i210 controller, 5x M12 X-coded on frontpanel

**SN3-GONG**
CompactPCI Serial peripheral board, 2 port 10 Gigabit Ethernet NIC, Ethernet controller Intel® X540, supports PCIe x1, x2, x4 and x8 links

**SP2-LUTE**
CompactPCI Serial peripheral board, dual PCIe Minicard carrier, fullsize and halfsize cards, supports PCIe and USB, dual SIM Card slot, 6x SMA/RP antenna connectors, onboard mass storage option via EKF J-HSE port

**SP4-MAMBO**
CompactPCI Serial peripheral board, quad PCIe Minicard carrier, fullsize and halfsize cards, supports PCIe and USB, quad SIM Card slot, 6x SMA/RP antenna connectors, additional mSATA Minicard slot

**SPX-PHASE**
CompactPCI Serial peripheral board, quad M.2 LTE module carrier board, 4x SIM card slots frontside access, 1x SMA antenna with onboard combiner module, software controlled functions for each M.2 module

**COMING SOON**
Peripheral Slot Controller

**cPCI Serial**

**SS9-RAI**
CompactPCI Serial peripheral board, four SAS/SATA 6Gbps interface ports, frontside mini-SAS connector, assembly unit comprising SK2-SESSION with DU1-MUSTANG

**SU8-HUM**
CompactPCI Serial peripheral board, dual port isolated RS485 interface, 2x D-SUB 9 front ports, comprising of SK2-SESSION with DU1-MUSTANG

**SU9-RATTLE**
CompactPCI Serial peripheral board, dual port isolated RS232 interface, 2x D-SUB 9 front ports, comprising of SK2-SESSION with DU2-PONY

**SU4-SOPRANO**
CompactPCI Serial peripheral board, octal PCIe to UART controller, each port configurable either RS232 or RS485, 8x mini D-SUB 9. via frontpanel, all ports via Rear I/O in TTL format

**SV1-CLIP**
CompactPCI Serial peripheral board, carrier for type A MXM 3.0 graphics module, PCIe x8 Gen3 interface, installed AMD E6460 graphic module, 4x Display Port front panel

**SV2-MOVIE**
CompactPCI Serial peripheral board, carrier for type B MXM 3.0 graphics module, PCIe x8 Gen3 interface, with installed Nvidia GTX 960/970/980 MXM 3.0 type B or AMD module
PCIe over Cable Expansion

cPCI Serial

**SX2-SLIDE**
CompactPCI Serial peripheral board, PCIe over cable host side adapter, two cable expansion ports PCIe x4, copper (7m) or active optical cable (300m)

**SX9-HOWL**
CompactPCI Serial system slot board, PCIe over cable target system adapter, 17x PCIe Gen2 for peripheral slot access, cable expansion ports PCIe x4 for copper (7m) or active optical cable (300m), dual GbE on frontpanel, dual USB3.0 on frontpanel

**SXS-STRING**
CompactPCI Serial system slot board, PCIe over cable target system adapter, enables SATA based peripheral cards, dual quad port SATA RAID controller

Distributed Computing & Measurement - Target

Main System - Host

Active Optical Cable - up to 300m

Removable Storage - Target
**Peripheral Slot Controller**
cPCI Classic

**CB3-TONE**
CompactPCI peripheral board, quad port USB 3.0/2.0 controller, 4 x front panel USB3.0 type A receptacles, backplane interface 32bit PCI 33/66MHz

**CL1-COMBO**
CompactPCI peripheral board, 5+1 port GbE switch unmanaged, 5 ports frontside via RJ45, 1 port onboard or via CompactPCI interface (NIC), backplane interface 32bit PCI 33/66MHz, available also as CL2-BRASS with M12 instead of RJ45 connectors and opt. as standalone version

**CN7-REVERB**
CompactPCI peripheral board, 5-Port Gigabit Ethernet hostadapter, 5x Intel® 82574IT GbE controllers, all ports on frontpanel via RJ45, backplane interface 32bit PCI 33/66MHz

**CUD-TWIST**
CompactPCI peripheral board, octal PCIe to UART controller, 4x isolated frontpanel ports RS485 via RJ45, 4 ports with TTL level optionally onboard or RIO access. With CUE-BALLAD EKF offers a solution for isolated RS232

**CV2-LOUNGE**
CompactPCI peripheral board, dual screen graphics controller, up to 1920x1080 (single display) or 1600x1200 (dual display) resolution, SM750 graphics controller with 16MB, available with DVI-I or VGA each port, backplane interface 32bit PCI 33/66MHz
XMC Mezzanine Modules

Open standard PCI mezzanine modules according to XMC specification (VITA 42) complete EKF product portfolio. Some modules with PMC (parallel PCI) are also available. Due to carrier for all CompactPCI standards modules can be integrated into system solutions. Thanks to open standard XMC/PMC slots outside CompactPCI Technology can integrate EKF modules also.

**DB4-EAGLE**
XMC mezzanine card, quad port USB3.0 controller, 3x USB F/P, 1x USB onboard optionally

**DC2-STAG**
XMC mezzanine card, PCI Express® external cabling host side adapter, two connectors PCIe x 4 38-pos., two target systems can be attached simultaneously

**DN1-PIKE**
XMC mezzanine card, 4x i210 (Intel) GbE NIC, 4x RJ45 F/P

**DN3-SHARK**
XMC mezzanine card, dual port 10 Gigabit Ethernet controller, 2x SFP+ front bezel connector cages, for either optical or copper cables

**DS1-LEOPARD**
XMC mezzanine card, four SAS/SATA 6Gbps interface ports, frontside mini-SAS connector

**DU1-MUSTANG**
XMC mezzanine card, dual port isolated RS485 interface, 2x D-SUB 9 front ports. 2x isolated RS232 ports available with DU2-PONY
DV1-DRAGON
XMC mezzanine card, SM750 graphics controller, 1x DVI-I or 2x VGA port F/P

DX2-COUGAR
XMC mezzanine card, quad SATA 6Gb/S controller, 2x eSATA F/P, one or two 1.8” SATA device slots onboard, optional RAID 0/1/10

DX4-BADGER
XMC mezzanine card, PCIe to 4 SATA 6Gbps interface controller, 3x mSATA module slots, 1x eSATA front connector

DX5-ANT
XMC mezzanine card, PCIe to 4 SATA 6Gbps interface controller, triple M.2 (NGFF) modules, size 2230 to 2280, 1x eSATA front connector, RAID 0,1,10 support
System Solutions

With more than 30 years experience in 19” technology, EKF offers a wide range of system services. Beside a standard product range custom tailored crates will be shipped together with integrated boards and cables turn key ready according to customer specification sheet.

SRS-3201-BLUBOXX
CompactPCI Serial System for desk top and wall mount applications, 4U/32HP optimized format with bottom mount fan, 5 slots CompactPCI Serial backplane, system slot right, up to 8HP space for CPU unit, 2x Fat Pipe Slots, 2x Peripheral Slots, removable AC-In PSU 150W (DC/DC 9-36V power supply with SRS-3210-BLUBOXX), all connectors on front side

SRP-4401-PluSIO
CompactPCI PlusIO Rugged Industrial Rack, 4U/44HP dimensions, hybrid backplane with PlusIO system slot, 3 CompactPCI peripheral slots, 4 CompactPCI Serial peripheral slots, removable PSU 250W. With part no. SRS-4401-SERIAL EKF offers a native CompactPCI Serial system based on same Rack

SRS-842X
CompactPCI Serial system series full 19” format, 9 slot single or dual cPCI Serial segments, rear I/O version optionally, industrial ATX or plugable cPCI Serial PSU with AC or DC input, 1U fan unit frontside accessible for rapid service

RUGGED SOLUTIONS
Together with partners for electronic packaging EKF offers a wide range of customized system solutions for CompactPCI Technology in a rough environment, e.g. ATR Chassis etc
EKF Elektronik – A Full Service Company

To guarantee high quality, flexibility and short lead times, it is vital to keep the whole workflow under control from start to finish. Therefore EKF Elektronik is not only a research and development company. EKF does not outsource – its own manufacturing services guarantee the high quality of EKF products, give the flexibility for customization and make short lead times possible. Today, two own buildings in direct vicinity offer more than 2,000sqm of floorspace with the opportunity for further expansion.

EKF Elektronik GmbH
Philipp-Reis-Straße 4
DE-59065 Hamm (Germany)
Phone +49(0) 2381 6890-0
www.ekf.com ■ sales@ekf.de

Please contact your local distributor (if mentioned below)

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