



▶ EMC² - MultiCore Zynq®

SUNDANCE

The EMC²-Family is a PCIe/I04 OneBank™ stackable carrier concept for a 'System-on-Module' design that offers ARM-CPU and FPGA processing power and a VITA57.1 FMC™ LPC I/O board.

The main building block is the EMC²-SoM carrier that will accommodate a 40mm x 50mm 'SoM' that can either be a Xilinx Z7015/Z7030 Zynq SoC Dual ARM9 CPU, an Artix-7 A100/A200 FPGA, Kintex-7 K70/K160/K325/K410 FPGA or ZU2EG/ZU3EG MPSoC Zynq + a number of High-Speed I/O interfaces to 'Real-World' applications, like PCI Express, USB, Ethernet and ADC/DAC.

Different 'SoMs' can be designed and integrated to add more embedded features and applications, such as smaller/larger FPGAs, more ARM or Intel CPU cores. The 'SoM' in an open-standard, as is the PC/I04.

The PCIe/I04 OneBank™ design enables the EMC²-DP to be added to robust and rugged installations for various commercial, medical, industrial and military uses.

To enable more versatility the EMC²-DP also incorporates a VITA57.1 FMC™ LPC connector opening up a range of extra possibilities and expansion options.

▶ ARM + FPGA + FMC I/O



Industry Standard PC/I04 format

VITA75 System Enclosures

Easy Development, Stackable

Rugged concept; 96mm x 90mm

VITA57.1 FMC I/O expandability

▶ BENEFITS



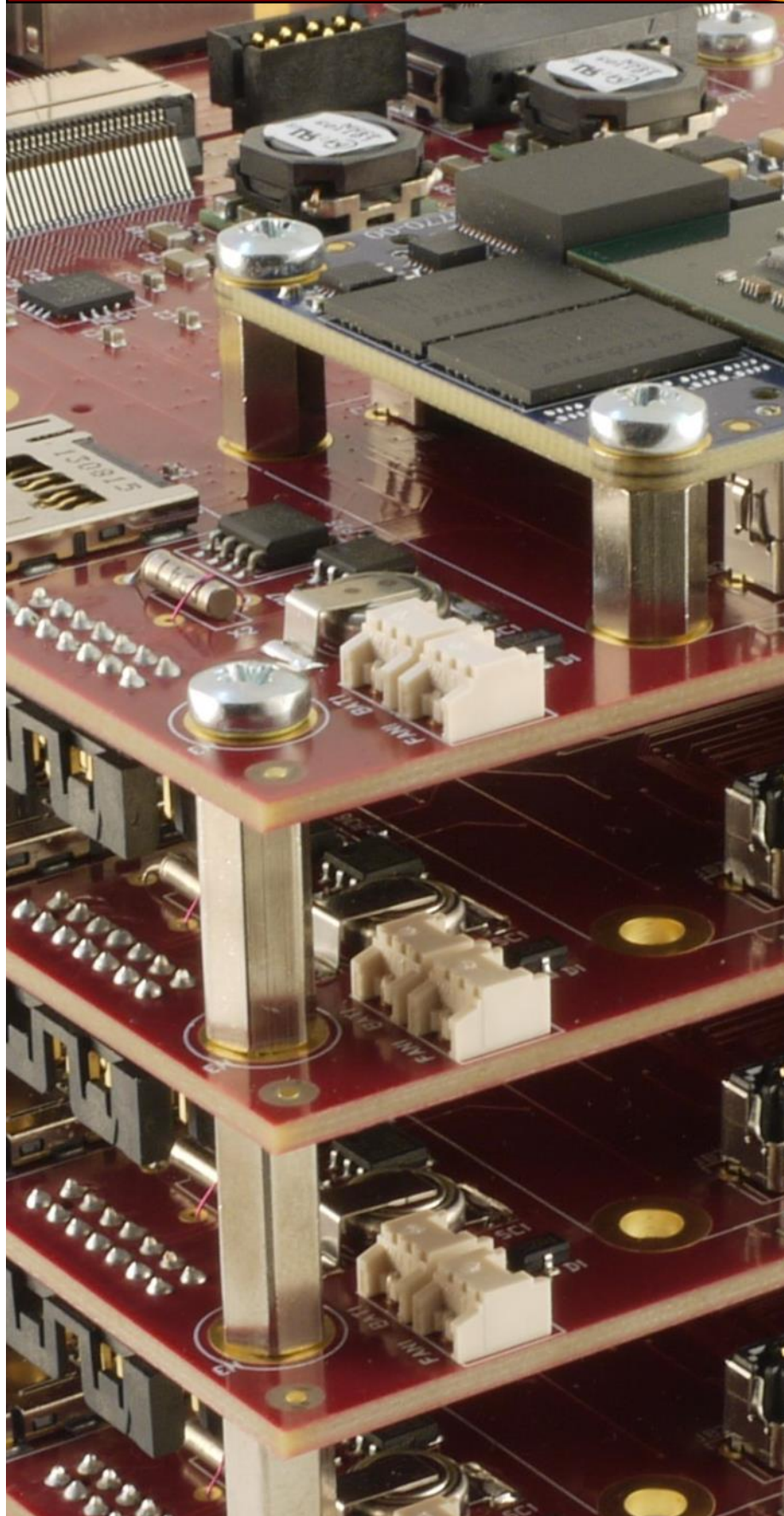
Zynq Single Board Computer (SBC)

ARM A9 Co-processor CPU

Artix-7 or Kintex-7 FPGA option

1000's of I/O combinations

▶ FEATURES



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EMC² – PC/I04 OneBank Compatible

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▶ EMC²-DP



▶ EMC² BLADE



▶ EMC²- SR100



▶ EMC²-HPERC



▶ EMC²-SOM



▶ FMC MODULES



EMC² - PC/I04 OneBank SBC/FPGA Boards

PRODUCT	DESCRIPTION	FORM FACTOR	SHIP
EMC²-SoM	SoM & FMC Carrier	PCIe/I04 OneBank	Now
EMC²-DP	SoM, SoC-SEIC & FMC Carrier	PCIe/I04 OneBank	Now
EMC²-Z7015	Zynq Z7015 + FPGA & FMC Carrier	PCIe/I04 OneBank	Now
EMC²-Z7030	Zynq Z7030 + FPGA & FMC Carrier	PCIe/I04 OneBank	Now
EMC²-7A100	Artix-7 FPGA & FMC Carrier	PCIe/I04 OneBank	Now
EMC²-7A200	Artix-7 FPGA & FMC Carrier	PCIe/I04 OneBank	Now
EMC²-7K325	Kintex-7 FPGA & FMC Carrier	PCIe/I04 OneBank	Now
EMC²-7K410	Kintex-7 FPGA & FMC Carrier	PCIe/I04 OneBank	Now
EMC²-ZU2EG	Zynq MPSoC + FPGA & FMC Carrier	PCIe/I04 OneBank	2H '16
EMC²-ZU3EG	Zynq MPSoC + FPGA & FMC Carrier	PCIe/I04 OneBank	2H '16

PC/I04 based Small Form-Factor Systems for EMC²

PRODUCT	DESCRIPTION	FORM FACTOR	FEATURES
Sundance EMC² Blade	Individual Stackable PC/I04 Blade concept, Industrial Temp.	Variable height, 150mm x 170mm	Using the EMC ² PCI Express switch for infinite stacking of boards
PerfecTron SR100	Fanless Rugged System with Intel® i7 CPU and PC/I04 Expansion, Extended Temp.	76mm height, 149mm x 250mm	4 th Generation Haswell, Multiple Display Ports + Expandable with a EMC ²
ADLINK HPERC	Rugged Finned-convection System with Intel® i7 CPU, MIL-STD-38999 Connectors	93 mm height, 105mm x 203mm VITA-75 mount	Immersion to IP67, Triple Display Ports + Expandable with a EMC ²

EMC² - System-on-Module

PRODUCT	DESCRIPTION	FORM FACTOR	FEATURES
Trenz SoM	Rugged 'System-on-Modules' with 3x High-Speed Samtec connectors, 260x I/O pins.	Variable height, 40mm x 50mm	Interchangeable and upgradeable, different FPGA speed and capacity

FMC Modules

PRODUCT	TYPE	CHANNELS	SAMPLING RATE	RESOLUTION
FMC-DIO	Digital I/O	5-channels	200MHz	
FMC30RF	RF	1xRX 1xTX	Bandwidth 30MHz	
FMC103	A/D	4x In	210 MSPS	12-bit
FMC104	A/D	4x In	250 MSPS	14-bit
FMC107	A/D	8x In	65 MSPS	12-bit
FMC112	A/D	12x In	125 MSPS	14-bit
FMC122	A/D	1x or 2x In	2500 MSPS	8-bit
FMC164	A/D	4x In	250 MSPS	16-bit
FMC168	A/D	8x In	250 MSPS	16-bit
SMT-FMC211	D/A	4x Out	312.5 MSPS	16-bit
SMT-FMC311	A/D + D/A	2x In/Out	125 MSPS/250 MSPS	14-bit / 16-bit
FMC407	Clock	8x +8x Outputs	35 MHz to 4.4GHz	

SUNDANCE MULTIPROCESSOR TECHNOLOGY LTD.