

Cost-Optimized IO Controller Board

DAMC-FMC1Z7IO

HIGHLIGHTS

Xilinx® Zynq®-7000 SoC: XC7Z030
(and higher)

Full Backplane and RTM connectivity

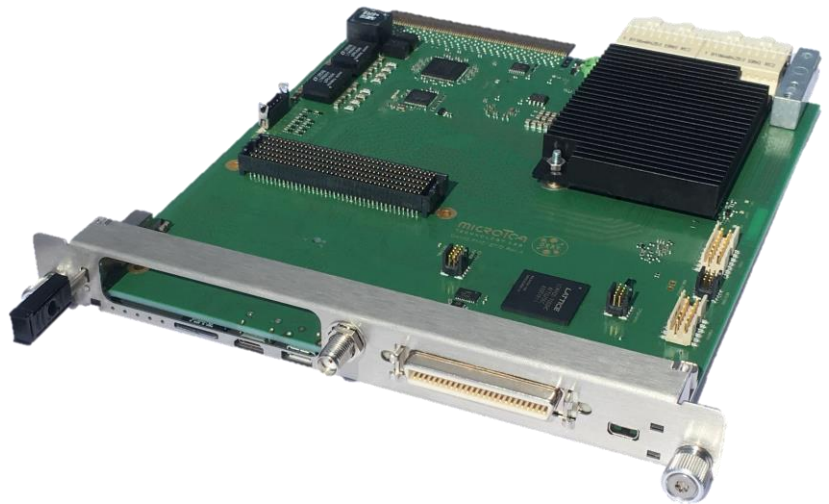
FMC socket with four fast transceivers

48 bidirectional IOs: 3.3V and true 5V

Dual-Core ARM® Cortex-A9 Processor

Front Micro-HDMI and USB Ports

Linux Support (eMMC and MicroSD)



FEATURES

Based on Xilinx® Zynq®-7000 System-on-Chip

One FMC LPC socket with up to 4 transceivers

FPGA: Xilinx® XC7Z030, XC7Z035 or XC7Z045

Dual-core Cortex-A9 ARM® CPU with up to 1GHz

PCIe x2 Gen.2 supported

Front panel SMA connector for external clock input

Flexible clocking system

GNU/Linux can be run from MicroSD card or eMMC

Board is shipped with pre-installed with Peta Linux

Standalone mode (runs without CPU Module)

Supported by all Xilinx® development tools

The DAMC-Z7IO is a Xilinx® Zynq®-7000 based IO Controller Board with one FMC socket in MTCA.4 form factor.

The carrier can be populated with the Xilinx XC7Z030, XC7Z035 or XC7Z045 SoC. The programmable logic features 125k/275k/350k logic cells, 400/900/900 DSP slices and 4x/8x/8x Multi-Gigabit Transceivers running at up to 12.5Gbps.

All MTCA.4 backplane ports are connected to the FPGA. Gigabit Ethernet (Port 0) is connected to Processing System (ARM®) and provides convenient access for development and for running application servers. Eight M-LVDS Timing/Trigger signals and three TCLK lines are connected as well. The board features a DDR3 memory block with 1GB (32bits) connected to PS, operating at 1066 MHz.

The board has one FMC LPC socket that has 2/4 transceivers connected (HPC connector).

The RTM interface is designed according to class D1.0 and carries full 48 LVDS lines. The board can support class compatible digital RTMs from DESY, such as DRTM-AD84 and DRTM-PZT4.

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DESY

Deutsches Elektronen-Synchrotron

Notkestr. 85 • 22607 Hamburg

mtca-techlab@desy.de

techlab.desy.de

microTCA
TECHNOLOGY LAB
A HELMHOLTZ INNOVATION LAB



Low-Cost IO Controller Board DAMC-FMC1Z710

DAMC-FMC1Z710

MTCA.4-based Xilinx® Zynq®-7000 AMC with FMC and I/O Support

