

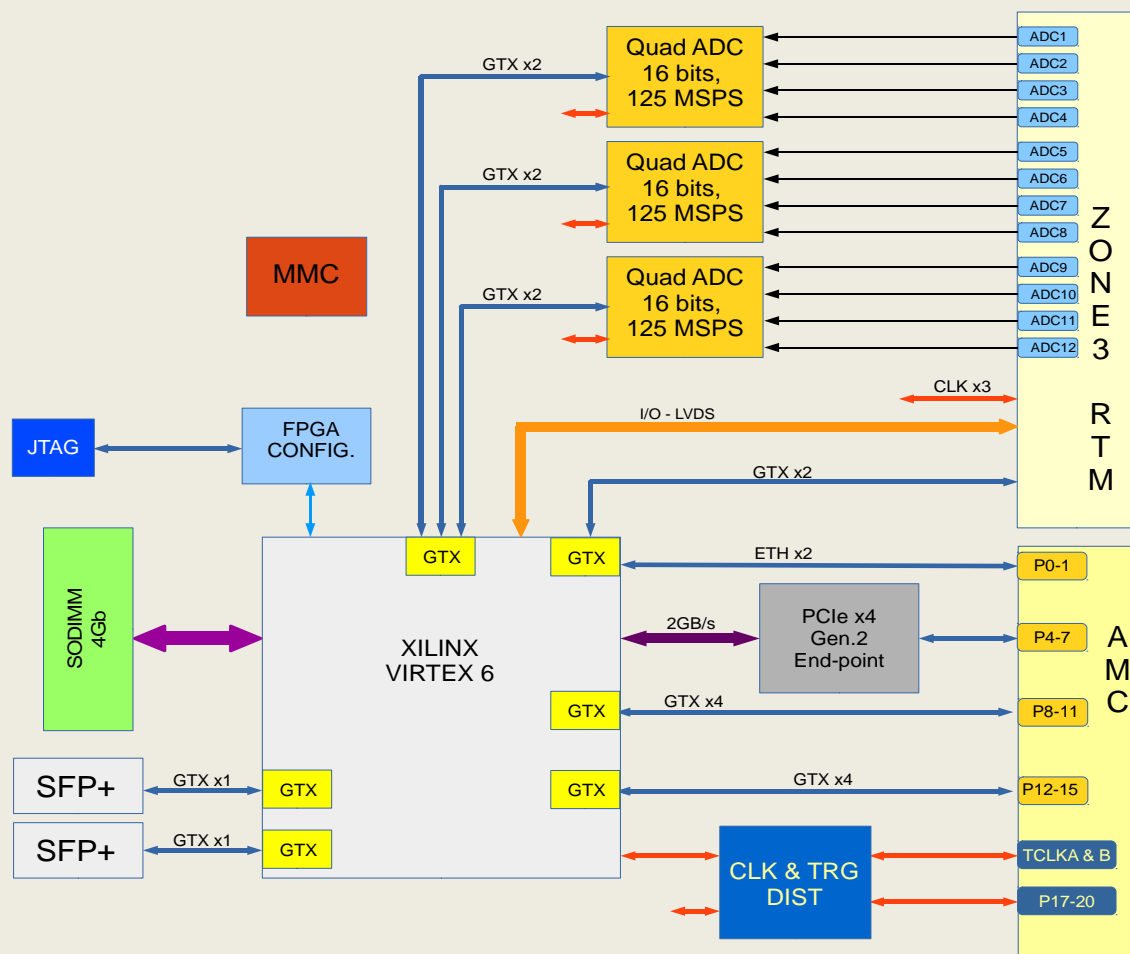
## EAMC-D102 Digitizer Board

### General Description:

The EAMC-D102 is a high speed, high performance 12 ADC (Analog to Digital Converter) Advanced Mezzanine Card (AMC). The module is equipped with programmable, high precision, low jitter clock distribution. The AMC is compliant to MTCA.4 specification and provides 2 x PCIe Gen.2 end-points for redundant operation. The FPGA has an interface to the SODIMM memory (up to 4Gb) and allows for large buffer sizes to be stored during processing. Each ADC input goes to the Rear Transition Module (RTM) connector that complies with uTCA.4. Several boards can be combined into a single multichannel hardware system using fast backplane or fiber links. Provided hardware and software (firmware, drivers, EPICS interface, example applications) accelerate integration of the board into a data acquisition or control system.

**eicSys offers customization of software/firmware according to customer specification.**

### Block Diagram:



Specification subject to change without notice

Description	
<b>Dimensions</b>	Double width AMC Module compliant to PICMG Specification MTCA.4
<b>Inputs/Outputs</b>	
FRON PANEL	2 x SFP+ JTAG
ZONE 3	12 x ADC channels, sampling frequency up 125MHz, 16-bit. 3 x clock inputs for ADC and FPGA 2 x MGT interface
AMC CONNECTOR	Ports 0-1 : Ethernet Ports 4-7 : PCIe Gen.2, x4 Ports 8-11 : PCIe Gen.2, x4 in redundant system / MGT custom links Ports 12-15 : MGT custom links Ports 17-20 : clock, triggers TCLK_A, TCLK_B, FCLK
<b>Chipset</b>	Virtex6 LX130T FPGA
<b>Memory</b>	SODIMM DDR3 memory up to 4GB
<b>Analog signals</b>	ADC: <ul style="list-style-type: none"> <li>• AD9656, 16-bit, 125 Msps</li> <li>• differential AC or DC inputs</li> <li>• 650MHz Full-Power Bandwidth S/H, limited to 150 MHz (3dB)</li> </ul>
<b>PCI Express</b>	2 x PCIe x4 Gen. 2 Port 4-7 Port 8-11
<b>Clock Signals</b>	TCLK A; TCLK B; FCLK, Port 17-20 TX/RX, ZONE3
<b>Software Support</b>	firmware upgrade through PCIe
<b>Environmental</b>	Operation: Temperature Range: 0°C to +70°C Storage: Temperature Range: -40°C to +85°C Humidity: 5-90%, non-condensing
<b>Ordering Information</b>	EAMC-D102

Developed by: eicSys Hamburg