

EAMC-TIM1 Timing Board

General Description:

The EAMC-TIM1 is an AMC FPGA IEEE1588 timing receiver equipped with an extension slot. The EAMC-TIM1 is compliant to the MTCA.4 specification. The unit has an on-board, reconfigurable FPGA Xilinx **Artix 7** with interfaces to AMC backplane. The board provides PCIe x1 Gen.2 endpoint. Provided hardware and software (firmware, drivers, EPICS interface, example applications) accelerate integration of the board into a data acquisition or control system.

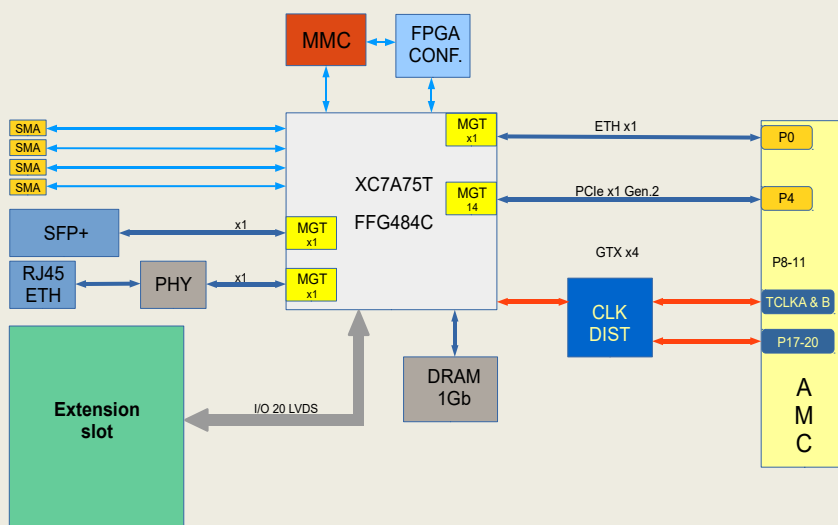
eicSys offers customization of software/firmware according to customer specification

Picture:



IEEE 1588 PTP; WhiteRabbit ready

Block Diagram:

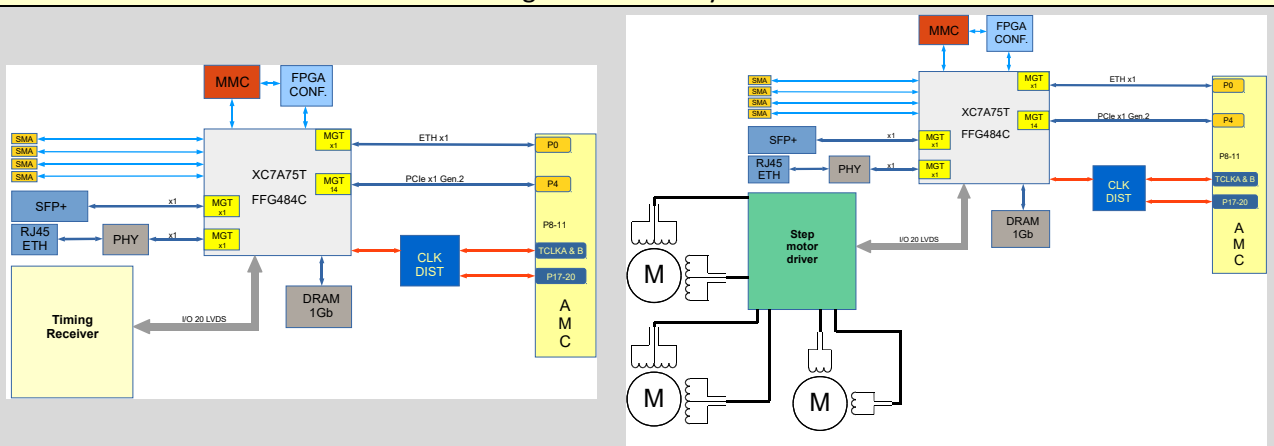


Specification is subject to change without further notice

Description		
Architecture		
Physical	Dimensions	Double width, mid size AMC Module
Standards	AMC.0, AMC.1, AMC.2, MTCA.4	Advanced Mezzanine Card
Compatibility	Extension Modules	EMD-WR100 – White Rabbit timing receiver EMD-STEP420 – 4-channel, 2-phase step motor driver EMD-STEP440 – 4- channel, 4-phase step motor driver
Configuration		
Electrical Properties	Power consumption	<80 Watt
Chipset	Artix 7	
Connectivity		
Extension Slot	I/O – 20 LVDS Power - 3.3V, 12V	
Clock Signals	TCLKA;TCLKB;FCLK, Triggers on P17-20	
Interfaces	Port 0 - GbEth Port 4 - PCIe x1 Gen.2	
Others		
Environmental	Temperature Range	Operation: 0°C to +55°C Storage: -40°C to +85°C
	Humidity	Humidity: 5-90%, non condensing
	Weight	0,4 Kg
Ordering Information	EAMC-TIM1-1588 – Timing receiver IEEE1588 EAMC-TIM1-WR Timing receiver White Rabbit EAMC-TIM1 – universal carrier module* * elements for IEEE1588 not populated	

Example Applications

Beside IEEE1588 the timing module EAMC-TIM1 offers a mezzanine module that allows extending system functionality. The extension module is ready for any kind of timing receiver, e.g. specific component for White Rabbit timing receiver or any other custom made.



The extension slot might be also populated with a step motor driver and together with the EAMC-TIM1 module becomes advance, low cost a step motor controller.

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Developed by: eicSys Hamburg