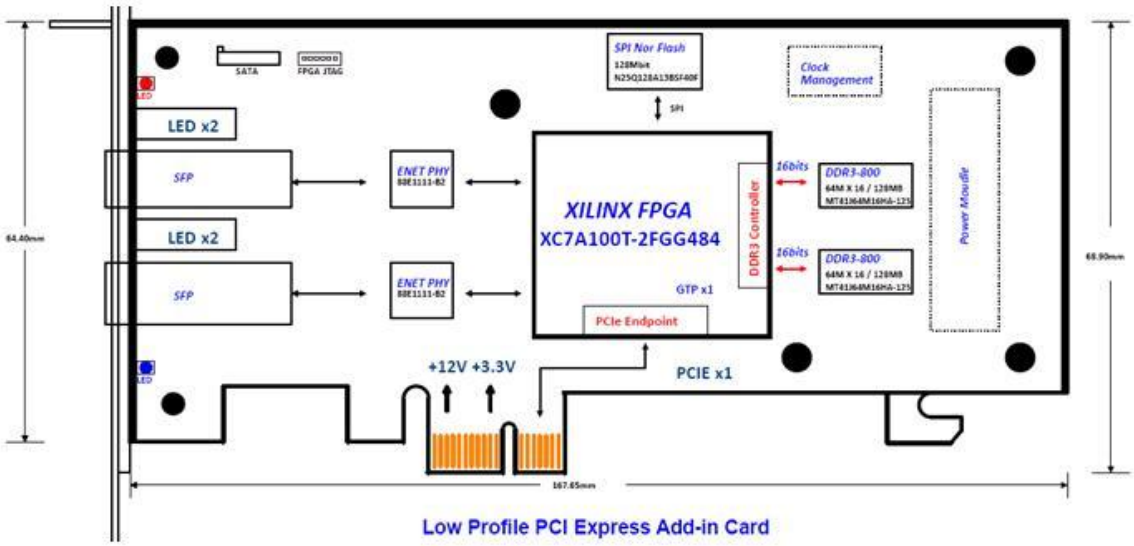
PCIe Gigabit Ethernet development platform based on XC7A100T



1. Overview

This board uese Xilinx company's Artix7 series XC7A100T-2FGG484 chip as the main processor. Includes dual gigabit fiber network, dual DDR, PCIeX1 V1.1 interface, which able to meet the requirements of the industrial level.



2.Specification

Item	Parameters
Main processor	XC7A100T-2FGG484
Standard	PCI EXPRESS CARD ELECTROMECHANICAL SPECIFICATION, REV. 1.1
Electrical	Standard PCIe semi-high card, PCI Express 2.0 compliant, PCIe X1 mode supported
On-board cache	FMC ANSI/VITA 57.1 - 2008

Loading Flash	Two sets 64M x 16bit DDR3 memory particles
High speed interface	16MB SPI Flash，apply for FPGA program loading
Low speed interface	Two channel gigabit fiber interface, maximum support 1000Mbp/s line rate
Size	Eight LVTTL GPIO
Power supply	DC +12V，1A
Power consumption	10W
Working temperature	Industrial -20℃ to +65℃

3. Test software

Item	Parameters
Main processor	XC7A100T-2FGG484
Software Version	ISE14.7
Programming language	Verilog
Interface test program	DDR test、Ethernet testing, PCIe IO mode testing
Interface application program	PCIe V1.1 XDMA test FPGA program, Windows 7, Linux driver

4. Application filed

Network acceleration, isolation, encryption card