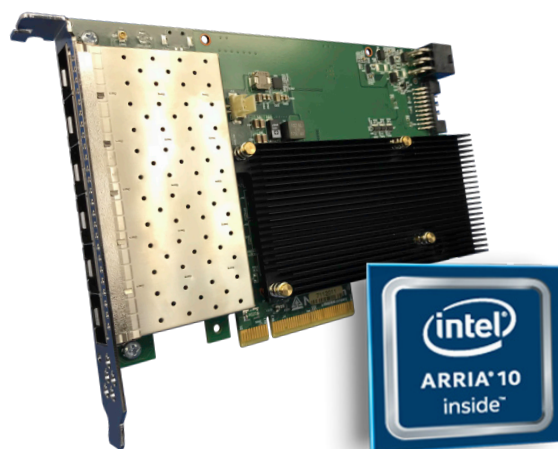


Nallatech 385A-SFP

FPGA Accelerator Card

Nallatech's 385A-SFP network accelerator card provides a powerful PCI-Express compute and high-density I/O platform for processing high-speed network traffic, FPGA development and deployment across a range of application areas including inline error correction, network traffic storage and high frequency trading.

- **8-lane PCIe Gen 3**
- **Single-width PCIe card**
- **Passively cooled**
- **Intel Arria 10 FPGA**
- **Six SFP+ network ports**
- **Supports CPRI rates up to 10Gbps**



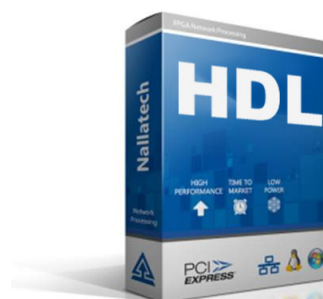
Intel-based FPGA network accelerator featuring six SFP+ network ports for high density, low latency

Designed to address a range of latency-critical applications:

- **Macrocell monitoring**
- **Macrocell inline digital RF filtering**
- **RF interference monitoring across CPRI**
- **CRAN monitoring using multiple cards across the PCIe bus**
- **Backhaul monitoring of Ethernet traffic**
- **High Frequency Trading**
- **Video Transcoding**
- **Medical Imaging**

Hardware Description Language (HDL)

- Traditional VHDL/Verilog tool flow support
- Aimed at hardware-orientated customers
- Hand-code HDL for ultimate performance
- Supports standard Intel IP cores for Arria 10



 **Nallatech**
a **molex** company

Nallatech 385A-SFP

Form Factor

- » Full-height, half-length, single width PCI Express card
- » 167.6mm x 110.9 mm x 17mm

Host Interface

- » 8-lane PCI-Express Gen 3.0
- » Actual performance is host computer chipset and operating system dependent

Processing

- » Intel Arria-10 10AX115 F40 package
- » Default configuration: GX 1150
- » Core speed grade -2, I/O speed grade -3
- » Contact Sky Blue or Zerif for other FPGA options

DDR4 SDRAM Memory

- » Two banks of DDR3 SDRAM x 72 bits
- » 4GB per bank
(8GB total or 16GB versions available)
- » 2133MT/s per bank

Application Development

- » Supports HDL design flow

Electrical

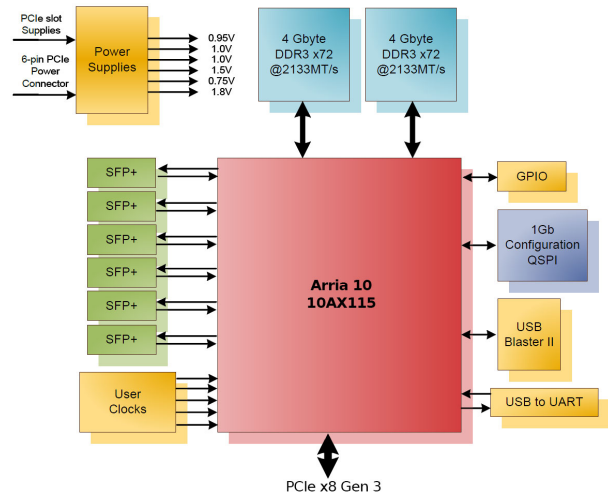
- » On-card power derived from host motherboard PCIe slot and optional external power source
- » Power dissipation is application dependent
- » Typical power consumption ~30W
- » Card designed to deliver up to 75W power consumption

Quality

- » Manufactured to ISO9001:2008 IPC-A-610-Class III
- » RoHS compliant

Power Supply Monitoring & Reporting

- » On-board Intel USB-Blaster II
- » Power and temperature monitoring*



Six SFP+ Network Ports

- » Supports 1/10Gb Ethernet, Fiber Channel & CPRI rates up to 10 Gbps
- » SFP+ ports clocked by up to four independent sources
- » SFP+ optional clocking: user programmable via I2C
- » Optional flexible low jitter clocking supports multiple telecom standards
- » Others options: external clock input, 1PPS

GPIO

- » single ended and differential GPIO connector

Cooling

- » Standard: single-width active heatsink (embedded fan)
- » Optional: single-width passive heatsink

Environmental

- » Cooling: Air convection
- » Operating temperature: 0°C to 35°C

Deliverables

- » 385A-SFP FPGA card
- » USB cable (back panel access)
- » Built-In-Self-Test (BIST)
- » 1-year access to online support lounge
- » 1-year hardware warranty

Customization: Technical specifications (e.g. FPGA type, size, external memory capacity etc.) can be modified to meet the exact needs of commercial customer applications as off-the-shelf product available to the general market.

Application optimization: Sky Blue and Zerif provides consultancy services assisting customers in the porting, optimization and benchmarking of applications executed on Nallatech FPGA accelerators.

* Please check with Sky Blue or Zerif for availability / V0.1: 2018/01/11

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