



MIES-XHN5A10

High Performance Computing Card
based on Intel Arria 10 GX FPGA with
Extension Connectors



MIES-XHN5A10 is based on latest Intel FPGA device, Arria 10 GX 1150. It offers a completed and simple approach for computing oriented environment that includes on-board memory for compatibility and it is up to DDR4 16GB DRAM. MIES-XHN5A10 also implements a 12V DC input, not only add extra power for PCIe, but design for stand along system. Cause of using into rack-mount system, MIES-XHN5A10 is implemented in a compact size within 68mm x 200mm.

For High-performance Computing and accelerating, it supports PCIe x8 gold-finger for connecting with main CPU and dual 10G LANs as a high speed network interface. Based on security concern to the user's IP (Intellectual Property) protection, it builds Intel Max 10 CPLD for implementing encryption/decryption function cores. MIES-XHN5A10 also built two 100 pins board to board Connectors for expansion the wide range and customized of I/O functions.

FEATURE

- Intel Arria 10 PCI Express Add-on Card with high speed extension
- PCI Express x8 gold-finger and dual 10Gb Network Interface
- Two 100 pins Board to Board Connectors
- On-board memory, up to 16Gb DDR4 SRAM
- Build-in Intel Max 10 CPLD
- Support 12V DC input
- Compact size in 68mm x 200mm

ORDERING GUIDE

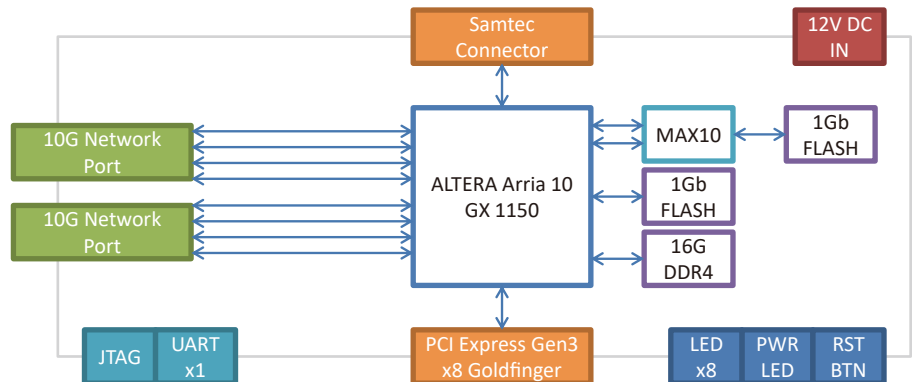
AB7-3044Z

MIES-XHN5A10.Accelerator Card.Alterra Arria 10 GX 1150 F34 based NIC.w/Dual 10G LAN/Mini SAS/PCIe Gen3 x8 /USB/UART/12VDC Input.

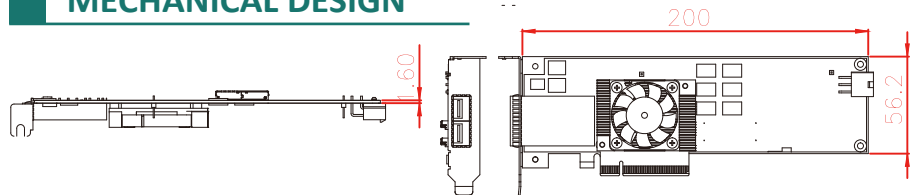
Specification

General	<ul style="list-style-type: none"> ■ ALTERA Arria 10 (GX 1150 F34 Package) ■ ALTERA Max 10 ■ 4Gb DDR4 SDRAM with ECC for Arria 10, and up to 16Gb ■ 1Gb FLASH for Arria 10 ■ 1Gb FLASH for Max10 ■ Low profile PCI Express Card for 2U Rack-mount Chassis ■ Board size within 200mm x 68mm (7.9 x 2.7 inch)
Interface	<ul style="list-style-type: none"> ■ PCI Express Gen3 x8 gold-finger ■ Dual 10Gb Network Interface ■ Dual 100 pins Board to Board Connectors ■ SAMTEC LSHM-150-04.0-L-DV-A-S-K-TR connectors for daughter board ■ JTAG, UART and Reset pin
Power	<ul style="list-style-type: none"> ■ 12V from PCIe gold-finger (25W) ■ Extra 12V DC in connector
Thermal solution	<ul style="list-style-type: none"> ■ Single-width active cooler with fan ■ Passive heatsink (optional)
Environment	<ul style="list-style-type: none"> ■ Operation temperature: TBD ■ Storage temperature: TBD ■ Relative humidity: TBD

FUNCTIONAL DIAGRAM



MECHANICAL DESIGN



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