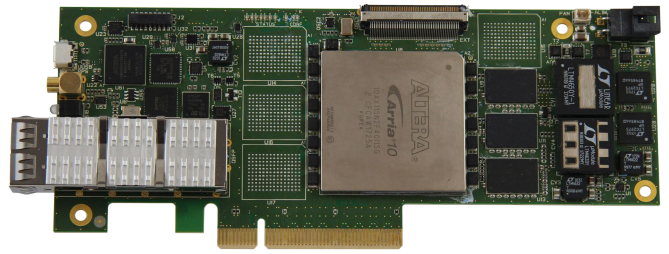


XpressGXA10-LP1151



- Low-profile PCIe board using Intel® Arria® 10 GX 1150 KLE
- Single slot passive cooling for servers
- Designed for fog computing and ultra low latency applications
- PCIe Gen3 x8 interface
- 8 GB on board DDR4 (x 72bit)
- QSFP+ cage 10/40 GbE ports
- Board Management Controller (BMC)
- 10 transceiver expansion port
- 10 GPIO expansion port

TECH SPEC

FPGA Configuration

- Intel® Arria® 10 GX 20nm FPGA : 10AX115N2F40I1SG
- NOR Flash for Active Serial (AS) configuration mode (2 sector for fail safe feature)

Memory

- 1 bank on board 8GB DDR4, 72bit (ECC), up to 2400 MT/s
- Flash = Configuration via Protocol (CvP) allowing to improve the PCIe access and allows the software to load an external image in the FPGA

Communication Interfaces

- PCI Express x8 (Gen 1, 2 or 3)
- QSFP+ quad optical cage (4 XCVR:10.3125 Gb/s per link)
 - 10GbE/40GbE networking interface
 - Other protocols supported by the QSFP module

Operating Range : 0°C to 70°C

Board Dimensions

- Length : 167.7mm (6.59inches)
- Height : 68.9mm (2.71 inches) / Low Profile PCIe
- Thickness : 1.57 mm (0.062 inches) / Standard Thickness PCIe254mm x 111.15mm

Power

- External auxiliary connector (12V)
- Max 80W
- Single slot passive heat-sink

Other resources

- 10 transceivers (Rx/Tx) LVCMOS/LVDS expansion port with board-to-board connection over SAMTEC LSHM connector (LSHM-150-01-F-DH-A-S-K-TR)
- 10 LVCMOS GPIO connector, SPI
- Programmable PLL oscillator (Si5341) controlled via the FPGA through an I²C serial interface, or via the BMC
- USB Blaster on board
- High precision oscillator clock accuracy 20MHz-0.05ppm for Precision Time Protocol (PTP) IEEE 1588
- One coax connector for PPS (pulse per second) for synchronisation of multiple electronics parts
- Board Management Controller (BMC) = monitoring, NOR Flash and clock programming, updates and IPMI features

Standards and compliance

- RoHS/REACH compliant
- UL certified
- ISO9001 Facility