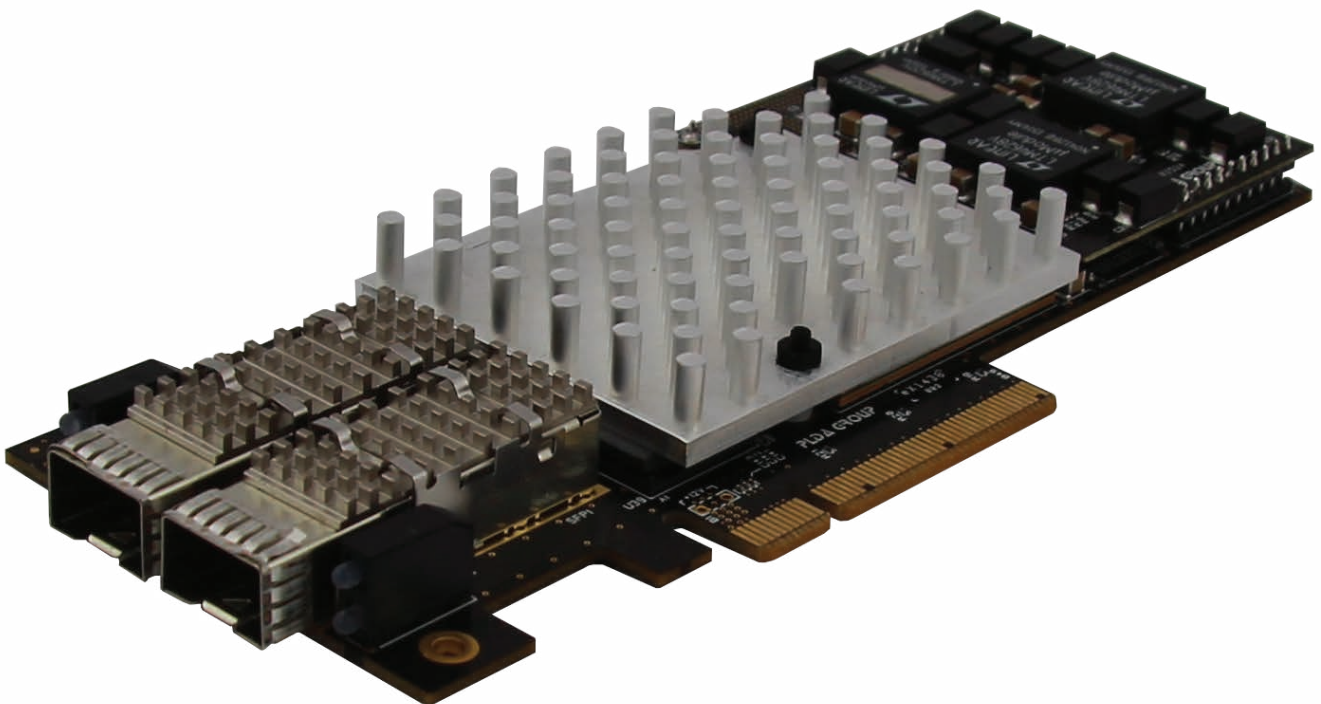


XpressGX5LP-SE

PCI Express Network
Processing FPGA Board

Low-profile Altera® Stratix®V GX Board
featuring PCIe 3.0 and QDR2+/DDR3L

- **Highly integrated, low-profile PCI Express FPGA board**
- **Features two 10Gb Ethernet links**
- **Features up to 2 x 8GB DDR3L SDRAM**
- **Features QDR2+, enabling simultaneous 4 data-in and 4 data-out accesses per clock cycle**
- **Compatible with the Altera® Software Development Kit (SDK) for OpenCL™**
- **Engineered for both prototyping and field deployment**
- **ISO9001 Production Facility**



Contact :

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Benefits

- Low-profile PCI Express form factor, integrates into any server box including 1U rackmount servers
- Pre-verified PCI Express® Gen 3 x8 enables high bandwidth to server memory
- Highly integrated, production optimized COTS board reduces time-to-market and risk
- PCIe®-based FPGA configuration enables remote firmware updates and supports Configuration via Protocol (CvP)
- No external power supply required
- Compatible with the Altera® Software Development Kit (SDK) for OpenCL

Full Specifications

FPGA and Configuration Modules

- Altera Stratix®V GX EP5SGXEA7K2F40C2, compatible with EP5SGXEA74
 - 622,000 Logic Elements
 - 938,880 registers
 - 7,145KB internal memory
 - 512 18x18 multipliers
 - 256 27x27 DSP blocks

Communication Interfaces

- PCI Express 3.0/2.0/1.1, x1, x2, x4, x8
- Two SFP+ interface
 - Uses FPGA transceivers allowing optical 1G/10G interface

Memory

- 8GB DDR3L SDRAM
 - 800Mhz (DDR3-1600) as 2 independent banks of 4GB (512M x 72-bit) with support for ECC
 - Up to 16GB pending memory parts availability
- 36MB QDR2+ SRAM (SIO)
 - 400Mhz as 2 independent banks of 18MB (8M x 18-bit)
- Non-volatile memory
 - 512MB Flash memory (2 x 64M x 32-bit)
 - 2 x 1KB I2C EEPROM

Clock Sources (MHz)

- 25, 50, 100, 125, 200, 644.53125

Deliverables

- Low-profile (half-height) form factor PCIe Board
- 1 year warranty on hardware
- Lifetime warranty on firmware (IP) and software

Ordering informations

Part number

- XpressGX5-LPA4SE-Gen3
- XpressGX5-LPA7SE-Gen3

Description

- PCIe 3.0, Altera Stratix®V GX, EA4K2F40C2N
- PCIe 3.0, Altera Stratix®V GX, EA7K2F40C2N

General purpose I/Os

- 2x3 LED on front panel bracket
- 8 x FPGA user LEDs
- 4 x FPGA configuration LEDs
- One reset button
- 1 x FPGA configuration reload button
- 1 x FPGA image boot connector
- 3 x User Switches

Board-to-board Interface

- Via a x4 serial link, delivering up to 40Gbps transfer speed

Quality and Compliance

- ISO9001 production facility
- RoHS, REACH
- IEC 60950-1 / CB Scheme
- FCC 47 CFR part 15

Power

- Through PCIe edge connector (12V and 3.3V) Power
- A7: Typical 30W, Max 50W

Operating Range

- 0°C to 60°C

Physical Dimensions

- L: 16.74 cm (6.59 in) x W: 6.89 cm (2.71 in)

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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