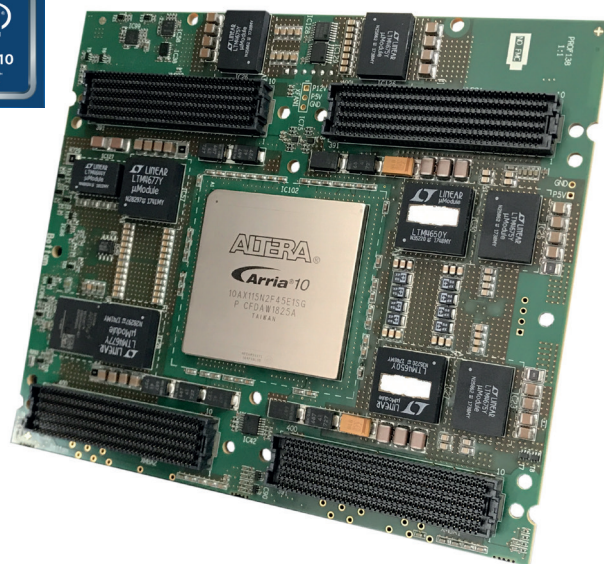# A10 GX1150 FPGA Module

Product Summary

The proFPGA A10 GX1150 FPGA module is the logic core for the scalable and modular multi-FPGA proFPGA solution, which fulfills highest needs in the area of FPGA based Prototyping. It addresses customers who need a scalable and most flexible high performance ASIC Prototyping solution for early software development and real-time system verification. The innovative system concept and technologies offer highest flexibility and reusability for several projects, which guarantees the best return on invest.

The proFPGA A10 GX1150 FPGA module, which only works in combination with a proFPGA uno, duo or quad motherboard, offers with its latest Intel® Arria® 10 FPGA technology a maximum capacity of up to 8 M ASIC gates alone in one FPGA. It is designed to achieve highest performance in combination with its high speed connectors. The module offers with its 6 extension sites up to 646 user I/Os for daughter boards (e.g. memory or interface boards), interconnect cables or customer specific application boards.

In addition to the regular I/Os the module also provides 48 high speed serial transceivers (4 x 12 Transceiver Tiles) running up to 17.4 Gbps for high speed interfaces like PCIe Gen4. All of the 6 extension sites offer individually and stepless adjustable voltage regions from 1.2V up to 1.8V.

profpga A10 GX1150 FPGA Module Specification

FPGA Type	- Intel Arria 10 GX 1150 (speedgrade 1)
Capacity	- Up to 8 M ASIC gates
FPGA memory	- 54,26 Mbit
DSP blocks	- 1518
Signaling rate	- Standard I/Os: up to 1 Gbps single ended - Transceiver Tiles: up to 17.4 Gbps
Extension sites	- 6 extension sites with high performance connectors

I/O resources	- Overall 646 signals
	    - 4 x 141 I/Os to top side connectors
	    - 1 x 43 I/Os and 1 x 39 I/Os to bottom side connectors
	- Single-ended or differential

High speed I/O transceivers	- Overall 48 high speed transceivers on top side - 4 x 12 transcievers to top side connectors
Voltage regions	- 6 individually adjustable voltage regions per FPGA Module - Stepless from 1.2 up 1.8V - Automated voltage adjustment for daughter boards
Configuration	- Via Ethernet, USB on PCIe
Order Code	- PROF-FM-10AX115-R1 (speedgrade 1)

profpga A10 GX1150 FPGA Module I/O and Clock Architecture