

SG-280 FPGA Module

Product Summary

The proFPGA SG-280 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 SG-280 FPGA module, which only works in combination with a proFPGA uno, duo or quad motherboard, offers with its latest Intel® Stratix® 10 FPGA technology a maximum capacity of up to 20 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 8 extension sites up to 1026 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 24 high speed serial transceivers (1 x 12 and 2 x 6 Transceiver Tiles) running up to 17.4 Gbps for high speed interfaces like PCIe Gen4. All of the 8 extension sites offer individually and stepless adjustable voltage regions from 1.2V up to 1.8V.



profpga SG-280 FPGA Module Specification	
FPGA Type	- Intel Stratix 10 SG-280 (speedgrade 1/2/3)
Capacity	- Up to 20 M ASIC gates
FPGA memory	- 229 Mbit
DSP blocks	- 5760
Signaling rate	- Standard I/Os: up to 1Gbps single ended - Transceiver Tiles: up to 17.4 Gbps
Extension sites	- 8 extension sites with high performance connectors
I/O resources	- Overall 1026 signals - 4 x 141 I/Os to top side connectors - 3 x 141 I/Os and 1 x 39 I/Os to bottom side connectors - Single-ended or differential
High speed I/O transceivers	- Overall 24 high speed transceivers on top side - 1 x 12 and 2 x 6 transceivers to top side connectors
Voltage regions	- 8 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-ASG280-1/-2/-3 (speedgrade 1/2/3)

