Product Brief

profpga
Speed meets Flexibility

XCVU7P FPGA Module

Product Summary

The proFPGA XCVU7P Virtex® UltraScale+™ 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 IP and 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 XCVU7P FPGA module, which only works in combination with a proFPGA uno, duo or quad motherboard, offers with its latest Virtex® UltraScale+™ FPGA technology amaximum capacity of up to 9.3 M ASIC gates. It is designed to achieve highest performance in combination with its high speed connectors. The module offers with its 6 extension sites up to 585 user I/Os for daughter boards (e.g. memory or interface boards), interconnecting cables or customer specific application boards.

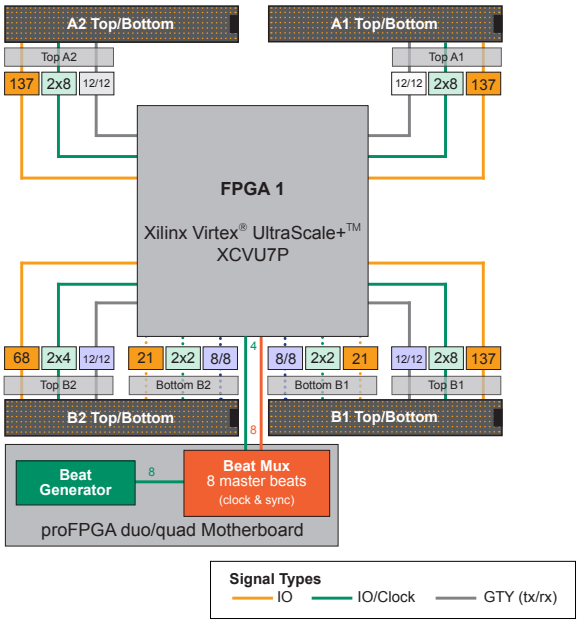
In addition to the regular I/Os the module also provides 64 high speed serial transceivers (64 x GTY) running up to 16.375 Gbps for high speed interfaces like PCIe Gen4. All of the 6 extension sites offer individually and stepless adjustable voltage regions from 1.2V up to 1.8V.

VIRTEX UltraSCALE+ XILINX

profpga XCVU7P FPGA Module Specification

FPGA Type	- Xilinx Virtex XCVU7P (speedgrade 1, 2)
Capacity	- Up to 9.3 M ASIC gates
FPGA memory	- 50 Mbit - 180 Mbit (UltraRAM)
DSP slices	- 4560
Signaling rate	- Standard I/Os: up to 1Gbps single ended - GTY Transceiver: up to 12.5/16.375 Gbps speedgrade 1/2
Extension sites	- 6 extension sites with high performance connectors
I/O resources	- Overall 585 signals - 3x153 I/Os and 1x 76 I/Os to top side connectors - 2x 25 I/Os to bottom side connectors - Single-ended or differential
High speed I/O transceivers	- Overall 64 high speed transceivers on top and bottom side - 4 x 12 GTY to top side connectors - 2 x 8 GTY to bottom side connectors
Voltage regions	- 6 individually adjustable voltage regions per FPGA Module - Step less from 1.2 up 1.8V - Automated voltage adjustment for daughter boards
Configuration	- Via Ethernet and USB or PCIe
Order Code	- PROF-FM-XCVU7P-1/PROF-FM-XCVU7P-2 (speedgrade 1/2)

profpga XCVU7P FPGA Module I/O and Clock Architecture



prodesign
the system solution provider