profpga
Speed meets Flexibility

XC7V2000T FPGA Module

Product Summary

The proFPGA XC7V2000T 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 reuseability for several projects, which guarantees the best return on invest.

The proFPGA XC7V2000T FPGA module, which only works in combination with an proFPGA duo or quad motherboard offers with its latest Virtex 7 FPGA technology maximum capacity of up to 12 M ASIC gates alone in one FPGA. It is designed to archive highest performance in combination with its high speed connectors. The module offers with its 8 extension sites up to 1100 user I/Os for daughter boards (e.g. memory boards, interface boards), interconneting cables or customer specific application boards.

Besides the standard I/Os the module also provides 16 high speed serial transceivers (MGTs) for high speed interfaces like PCIe Gen2, Gen3, USB 3.0 or DDR3 memories. All of the 8 extension sites offer individually and stepless adjustable voltage regions from 1.2V up to 1.8V.
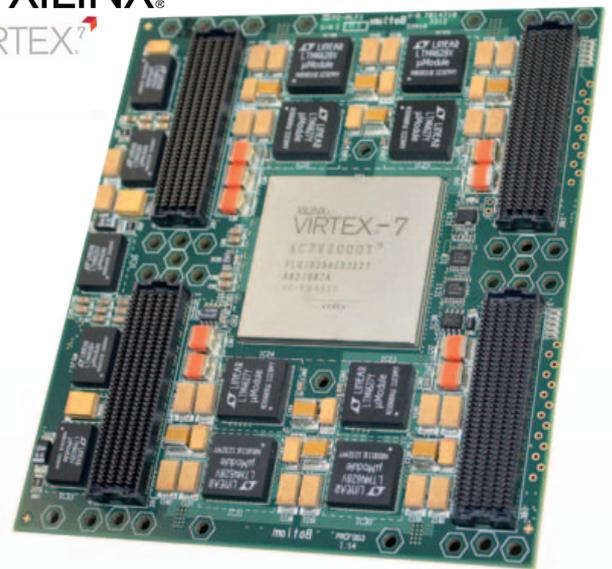
XILINX®
VIRTEX.7

profpga XCV72000T FPGA Module Specification

FPGA Type	- Xilinx Virtex XC7V2000T (speedgrade 1, 2)
Capacity	- Up to 12 M ASIC gates
FPGA-internal memory	- Up to 46,512 kbits
Signaling rate	- Up to 1 Gbps (standard I/O)/ 12.5 Gbps (MGT)
Extension sites	- 8 Extension sites with High Performance connectors

I/O resources	- Overall 1084 signals for I/O and inter FPGA connection
	    - 4x148 I/Os to top side connectors
	    - 3x148 and 1x48 I/Os to bottom side connectors
	- Single-ended or differential

High speed I/O transceivers	- 16 dedicated MGTs running up to 12.5 Gbps
FPGAs interconnections	- Flexible via high-speed interconnection boards or cables
Voltage regions	- 8 individually adjustable voltage regions per FPGA Module - Stepless from 1.2 up 1.8V - Automated adjustment of right voltage for daughter boards
Configuration	- With proFPGA duo/quad Motherboard via Ethernet, USB, PCIe
Order Code	- PROF-FM-XC7V2000T

profpga XC7V2000T FPGA Module I/O and Clock Architecture

A2 Top/Bottom		A1 Top/Bottom	
Top A2	Bottom A2	Bottom A1	Top A1
132	2x8	132	2x8	2x8	132	2x8	132

FPGA 1
Xilinx Virtex 7
XC7V2000T

132	2x8	8/8	40	2x4	4	2x8	132	8/8	2x8	132
Top B2			Bottom B2			Bottom B1			Top B1	

B2 Top/Bottom	B1 Top/Bottom

Beat Generator —8— Beat Mux
8 master beats
(clock & sync)
8

proFPGA duo/quad Motherboard

Signal Types
— IO   — IO/Clock   — MGT (tx/rx)

HALEY TECHNOLOGY
和澄科技股份有限公司
www.haleytech.com   sales@haleytech.com
新竹+886-3-579-0380   Fax：+886-3-579-0370
R&D TOOL   FPGA   SYSTEM PROCESSOR   Training   EDAC
ABC   IP   DSP   Software   FMC   COMMUNICATION

官方網站   產品/活動訊息   線上購買

prodesign
the system solution provider