

# XC7VX690T FPGA Module

## Product Summary

The proFPGA XC7VX690T FPGA module is the logic core for the scalable, and modular multi FPGA proFPGA solution, which fulfills highest needs in the area of high speed interface verification and test. It addresses customers who need a 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 XC7VX690T FPGA module, which only works in combination with an proFPGA duo or quad motherboard offers with its latest Virtex 7 FPGA technology medium capacity of up to 4.2 M ASIC gates alone in one FPGA. It is designed to achieve highest performance in combination with its high speed interfaces and connectors. The module offers with its 6 extension sites up to 738 user I/Os for daughter boards (e.g. memory boards, interface boards), interconnecting cables or customer specific application boards.

The highlight of this module is, that it offers beside the standard I/Os 36 high speed serial transceivers (MGTs) for high speed interfaces like PCIe Gen2, Gen3, USB 3.0, or DDR3 memories. All of the 6 extension sites offer individually and stepless adjustable voltage regions from 1.2V up to 1.8V.



profpga XC7VX690T FPGA Module Specification	
FPGA Type	- Xilinx Virtex XC7VX690T (speedgrade 1,2), FFG1761 package
Capacity	- Up to 4.2 M ASIC gates
FPGA-internal memory	- Up to 52,920 kbits
Signaling rate	- Up to 1 Gbps (standard I/O)/ 13.1 Gbps (MGT)
Extension sites	- 6 Extension sites with High Performance connectors
I/O resources	- Overall 738 signals for I/O and inter FPGA connection - 3x148 I/Os and 1x98 to top side connector - 1x148 and 1x48 I/Os to bottom side connectors - Single-ended or differential
High speed I/O transceivers	- 36 dedicated MGTs running up to 13.1 Gbps depending on FPGA type and speedgrade
FPGAs interconnections	- Flexible via high-speed interconnection boards or cables
Voltage regions	- 6 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-XC7VX690T

