



Product Brief

prodesign FALCON-NEST mini

PRODUCT SUMMARY

Within a compact 1U chassis and half depth, the little brother of the FALCON-NEST, the FALCON-NEST mini FPGA server boasts remarkable density, delivering exceptional I/O networking bandwidth and computational capability. It features one prodesign FALCON Stratix 10 FPGA accelerator and Intel Core i7-12700E CPU, a potent combination by Thomas Krenn that ensures top-tier scalable performance with German engineering excellence. This innovative solution not only sets new trends but also demonstrates a positive ecological impact compared to conventional server setups. The FALCON-NEST mini significantly reduces power consumption, occupies minimal space, and comes at an appealing price point.

KEY MARKETS

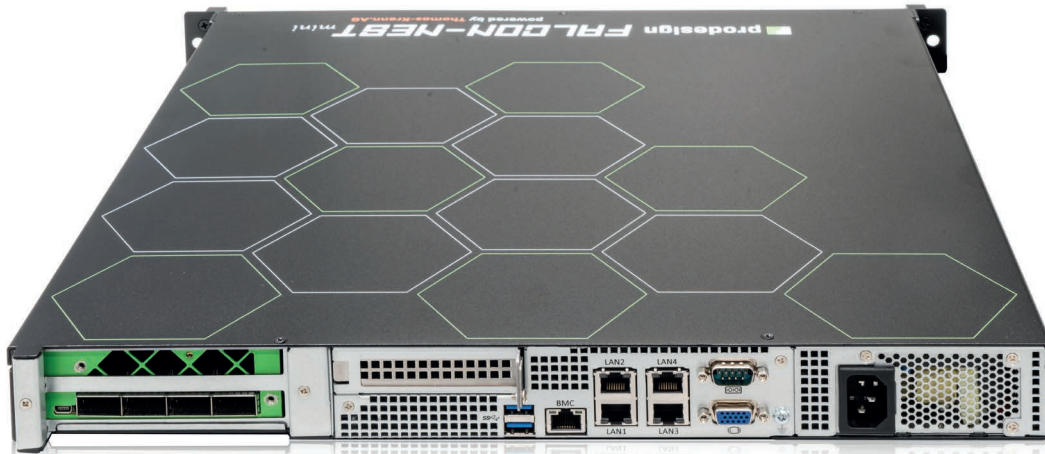
- High Performance Computing
- AI and Machine Learning
- Video Broadcasting
- High Frequency Trading

KEY FEATURES

- 1x prodesign FALCON Stratix® 10 Acceleration Card
- Up to 8x 100Gbps or 4x 200Gbps or 32x 10/25Gbps
- Ultra high density in a 1U mini FPGA server in a compact size with 44 x 480 x 438mm

1U FPGA SERVER CHASSIS





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**THOMAS
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PRO DESIGN IN-HOUSE ADVANTAGES

R&D team (HW, SW):

- Board modifications
- Customization
- Custom module development

Production Lines:

- Full cycle with 40 years of experience
- fast and determined lead times
- several SMD lines

Test Facilities

- Quality
- Reliability
- Service support

Further Information

Please visit:
www.prodesign-fpga-acceleration.com

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FURTHER SPECIFICATIONS

Acceleration Cards	1 x prodesign FALCON Stratix® 10 Acceleration Card: → based on Altera® Stratix® 10 MX or NX FPGA incl. HBM2
CPU	Intel Core i7-12700E
Memory	32 GB (2x 16384 MB) ECC DDR5 4800 RAM 1 Rank Up to 128 GB
Storage	480 GB SATA III SSD 2.5" mit PLP
CPU-Cooling	1U CPU-Cooler (Intel LGA 1700, passive) Internal Cooling via 4x Fan
Power Supply	Single 1U 650W or Redundant 1U 650W
Chassis	1U rack system (44 x 480 x 438 mm)
Order Code	PD-FALCON-NEST mini

WHY prodesign FALCON-NEST?

- Enormous performance density within a 1U chassis.
- Highest level of compute and network capabilities.
- Server and Accelerator Cards are assembled in Germany (TAA compliant).
- Fully pre-configured and tested solution.

EXAMPLE USE CASES AND SOFTWARE



Live Broadcasting Infrastructure Software



Solution for Offloading Packet Processing into FPGA