

VPX3U-THOR-RD

NVIDIA® IGX Thor™ Rapid Development SBC

PRELIMINARY

OVERVIEW

The VPX3U-THOR-RD module provides rapid access to a rugged VPX module featuring the NVIDIA® IGX Thor™. Designed to meet the needs of demanding C5ISR applications, this module provides advanced AI and HPC processing capabilities, high data-transfer rates, and the cyber security features required to ensure data is being protected. The SOSA aligned module is designed with a focus on providing easy access to the NVIDIA® IGX Thor™, featuring an XFI-PHY for high bandwidth applications and a 1TB SSD for storage-dense requirements.

For applications requiring additional features such as PCIe switches, safety certifiability, or ConnectX NICs, check out WOLF's other NVIDIA® IGX Thor™ 3U VPX modules including 16T1, 16T5, and 16TZ.

KEY FEATURES

- 2070 FP4 TFLOPs AI Compute
- Embedded Blackwell GPU, with 2560 CUDA cores and 96 Gen 5 Tensor cores
- Multi-Instance GPU (MIG) support, two instances.
- 14-core Arm® Neoverse®-V3AE CPU, 2.6GHz
- 128 GB ECC LPDDR5X 256 bit memory at 273 GB/s
- DisplayPort MST/HDMI output
- Module power: configurable from 60W - 140W
- High level of ruggedization:
 - Operating temperature: -40° to +85°C
 - Vibration (sine wave): 10G peak, 5 - 2000Hz
 - Shock: 40G peak
- Dimensions: 160mm x 100mm x 25.4mm
- Weight (approx.): 1kg
- ANSI/VITA 48/65 (VPX REDI, OpenVPX)
- SOSA® Aligned SBC slot profile 14.2.16



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ADDITIONAL IGX THOR FEATURES

- Industrial Grade (extended temp, shock, and vibration)
- Supports wide range of generative AI models
- Runs NVIDIA Isaac™ GROOT, Metropolis, and Holoscan
- Up to 6× 4Kp60 (H.265) encode
- Up to 10× 4Kp60 (H.265) decode
- IGX OS (Enterprise SW)
- CUDA® 13, OpenGL® 4.6, OpenGL ES 3.2, Vulkan™ 1.2
- 10 year lifecycle to 2035

CONNECTIVITY / SYSTEM MANAGEMENT

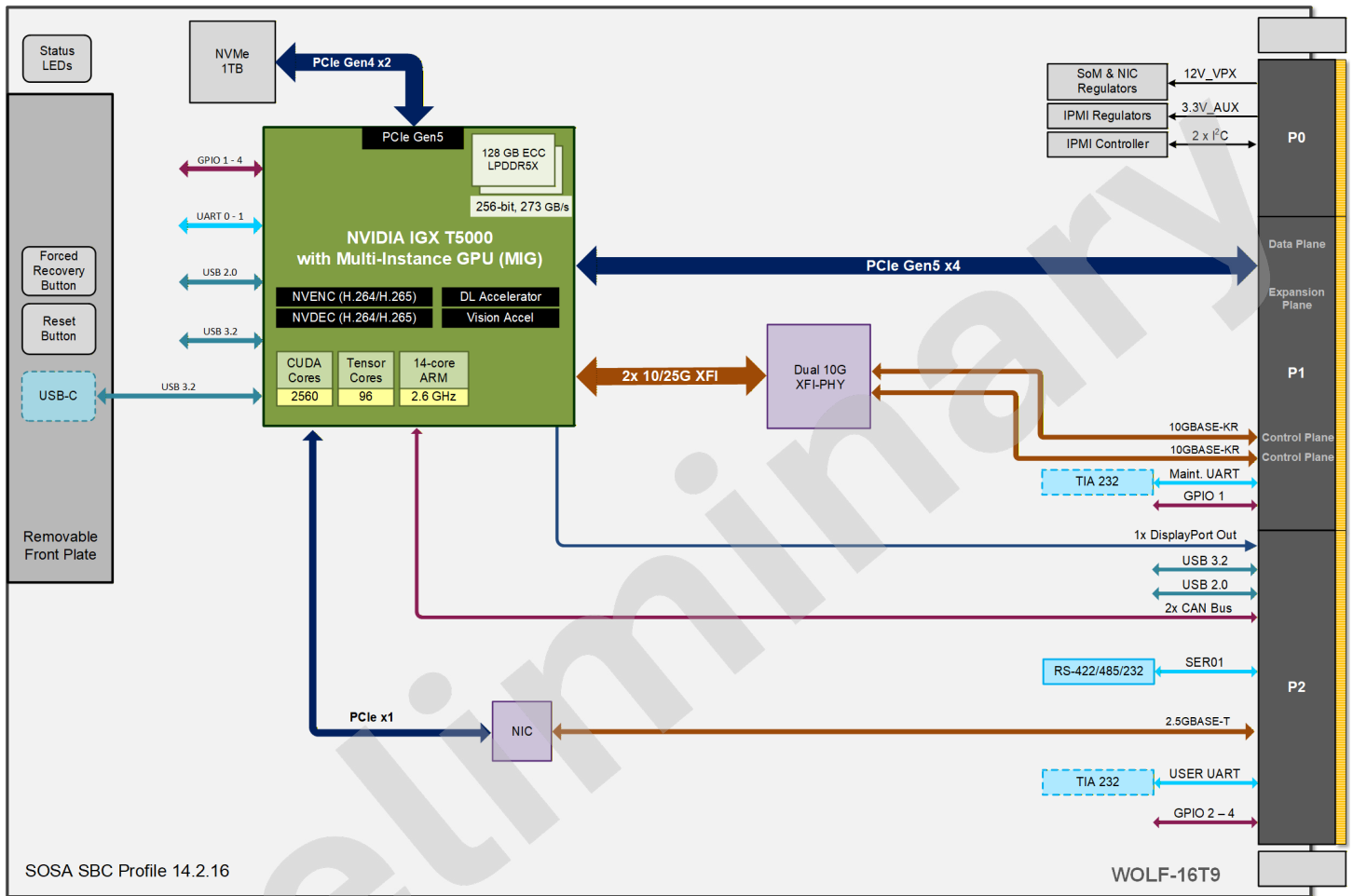
- 1TB NVMe Storage
- Backplane Ethernet with 2× 10GBASE-KR
- USB 3.2 and USB 2.0 to P2
- CAN bus (x2) to P2
- DisplayPort
- Front panel USB-C for setup/debug
- 2.5GBASE-T Ethernet to P2

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