

JETKIT-3020

NVIDIA® JETSON AGX ORIN™ FOR COMPACTPCI SERIAL

ELMA BRINGS ARTIFICIAL INTELLIGENCE TO COMPACTPCI SERIAL PLATFORMS

Our JetKit-3020 CompactPCI Serial ORIN board fits perfectly into your existing CompactPCI Serial environment and provides a boost of computing power for your AI applications. With its industry leading performance, power efficiency, integrated deep learning capabilities and rich I/O, the NVIDIA® Jetson AGX Orin™ enables emerging technologies with compute-intensive requirements. Designed for applications converging on artificial intelligence (AI), computer vision (CV) and advanced graphics, the AGX Orin is ideal for (but not limited to): Intelligent Video Analytics (IVA), Robotics, Virtual Reality (VR), Augmented Reality (AR), Portable Medical Devices, and Autonomous Driving.

The NVIDIA® Jetson AGX Orin™ delivers up to 248 TOPs of AI performance for embedded industrial applications with power configurable between 15 W and 75 W. It's form-factor and pin-compatible with Jetson AGX Orin, and gives you more than 8x the performance of Jetson AGX Xavier industrial as featured in JetKit-3010. Elma Electronic brings this massive compute power to CompactPCI Serial platforms.

**BOARD INTERFACES****Interfaces of the front panel**

- USB Type C (2x)
- USB 2.0
- Gigabit Ethernet
- Mini HDMI
- MicroUSB (Client)
- SD/UFS-Slot

Backplane Interfaces

- PCIe x8 (Root- Complex or End Point)
- Gigabit Ethernet
- USB 3.2

Storage

- On-board M.2 (2242) Type M NVMe socket

FEATURES**GPU**

2048-core NVIDIA Ampere architecture GPU with 64 tensor cores

CPU

12-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU
3 MB L2 + 6 MB L3

Memory

64 GB 256-bit LPDDR5 @ 3200 MHz 204.8 GB/s (+ECC)

Storage

64 GB eMMC 5.1

Networking

1 Gbe | 1x 10 GBE

Display Controller Subsystem

Mini HDMI Serial Output Resources (SOR) | HDMI 2.0a/b (up to 6 Gbps)

Maximum Resolution:
(up to) 3840 x 2160 at 60 Hz (up to 36 bpp)

Multi-Stream HD Video & JPEG

Video Encode

1x 4K60 | 3x 4K30 | 7x 1080p60 | 15x 1080p30 (H.265) H.264, AV1

Video Decode

1x 8K30 | 3x 4K60 | 7x 4K30 | 11x 1080p60 | 23x 1080p30 (H.265) H.264, VP9, AV1

Peripheral Interfaces

USB:

3x USB 3.2 Gen 2 | 4x USB 2.0

PCIe:

2 x8 + 1 x4 + 2 x1, 22 lanes PCIe Gen 4

Mechanical

Board Size: 160 mm x 100 mm x 8 HP

Heat sink: high-performance heat sink for advanced cooling

Power

15 W - 75 W

Note: Delivering comprise with a basic software based on the current NVIDIA® developer image (further information: see NVIDIA® developer area on their webpage). Modified device-tree and detailed manual on request.