Perform AI at the Edge with the world’s smallest AI supercomputer and D3 Engineering cameras & sensors

This DesignCore® NVIDIA® Jetson Xavier™ NX 12-Camera Carrier Board allows users to quickly interface and develop with multiple cameras or sensors with the Jetson Xavier NX module. Take advantage of the incredible compute power and compact size of the Jetson Xavier NX by combining up to 12 streams of input data via the FPD-Link™ III interface. Each sensor stream comes in over a serial link and is deserialized into CSI-2 data for consumption on the NX module. An on-board FPGA provides hardware-level synchronization capability.

The carrier board also contains other peripherals and expansion connectors that are essential for Edge AI applications. The on-board peripherals include USB3, Gigabit Ethernet, and DisplayPort. Expansion headers are available for SSD storage (M.2 Type M), Wi-Fi/LTE (M.2 Type E), USB-C, PoE, and an additional HDMI or DisplayPort.

D3 Engineering offers compatible cameras, radar sensors, and software design examples that can be used for both evaluation and production. D3 also provides customization services to modify any DesignCore product to meet your production needs.

**FEATURES**
- 12x FPD-Link III Input Channels
- Power-over-Coax Connection
- FPGA for Hardware-Level Synchronization
- 1x USB3.1
- 1x DisplayPort
- 1x Gigabit Ethernet
- M.2 Type M Key for SSD Expansion
- M.2 Type E Key for Wi-Fi/LTE Expansion
- CAN bus
- Expansion Header for USB-C, PoE, & Additional DisplayPort

**APPLICATIONS**
- Robotics
- Autonomous Machines
- Camera Monitoring Systems
- Industrial Vehicle Systems
- Machine Vision

**SPECIFICATIONS**

| **GPU** | 384-core NVIDIA Volta™ GPU with 48 Tensor Cores |
| **CPU** | 6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6 MB L2 + 4 MB L3 |
| **DDR** | 8 GB 128-bit LPDDR4x |
| **eMMC** | 16 GB eMMC 5.1 |
| **Inputs** | 12x FPD-Link III Coax |
| **Deserializer** | 3x DS90UB960 |
| **Coax Input Connectors** | 3x Quad FAKRA |
| **Display** | 1x DisplayPort 1x DisplayPort/HDMI (Expansion) |
| **Storage** | M.2 Type M (SSD – Expansion) SD Card (Expansion) |
| **Data Transfer** | 1x Gigabit Ethernet 1x USB3.1 M.2 Type E (Wi-Fi/LTE – Expansion) |
| **I/O Interfaces** | Programmable Logic for Synchronization GPIO CAN UART |
| **Power** | 6.5-17V DC, 12V Nominal |
| **Operating Temperature** | -25C to 85C |
| **Size** | 5" x 4" |

Production-ready carrier board with up to 12 camera or sensor inputs for critical Edge AI applications.

**Supported Modules & Image Sensors:**
- NVIDIA Jetson Xavier NX Module
- NVIDIA Jetson Nano Module
- OmniVision OV10640, OV2311
- On-Semi AR0820, AR0233, AR0234
- Sony IMX390, IMX490

**CALL:** 1-585-429-1550  **EMAIL:** sales@D3Engineering.com
ACCELERATE TIME TO MARKET

D3 Engineering speeds embedded system development with our proven DesignCore® camera & radar modules and full-cycle embedded product development services. Our expertise in imaging system design and our status as an NVIDIA Jetson Preferred Partner will help you get to market faster, while reducing the risks and costs of new product development.

ORDERING INFORMATION

SKU 1001211 | DesignCore® NVIDIA® Jetson Xavier™ NX 12-Camera Carrier Board
Buy online at https://d3engineering.com/store

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